

Figure 1

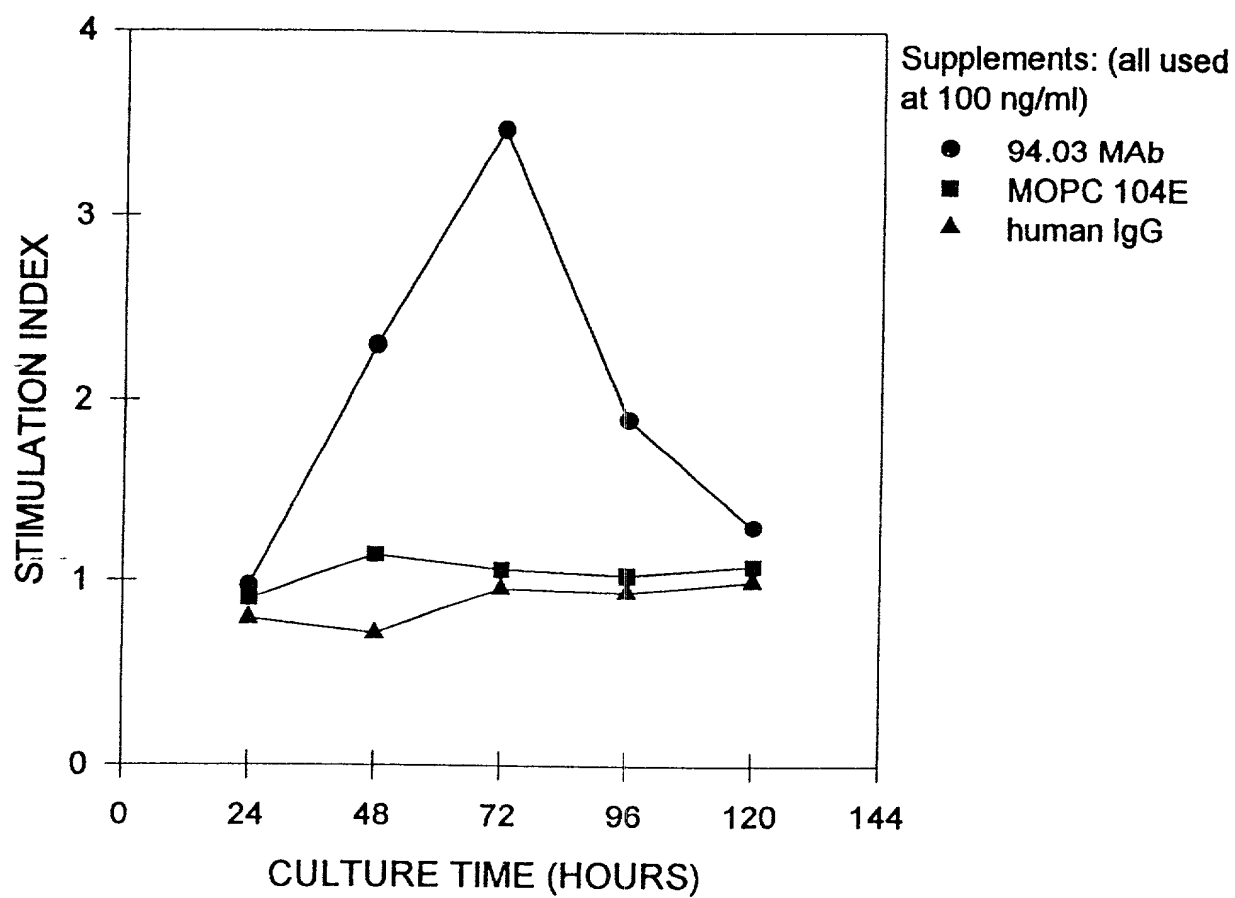


Figure 2

FIG. 3A

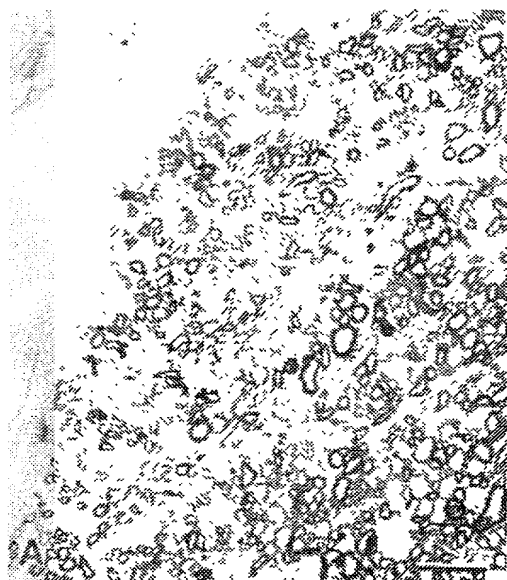


FIG. 3B

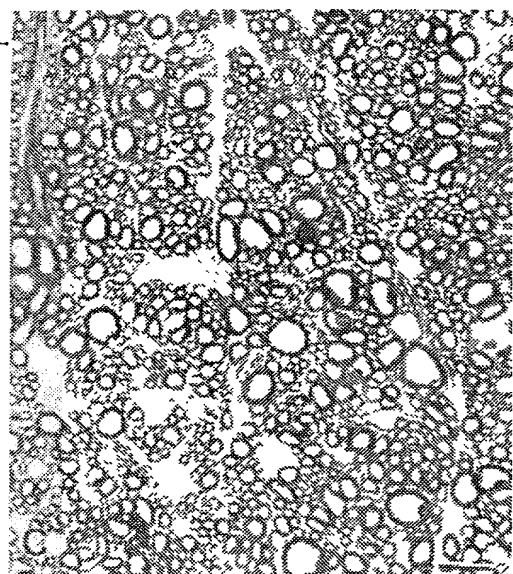
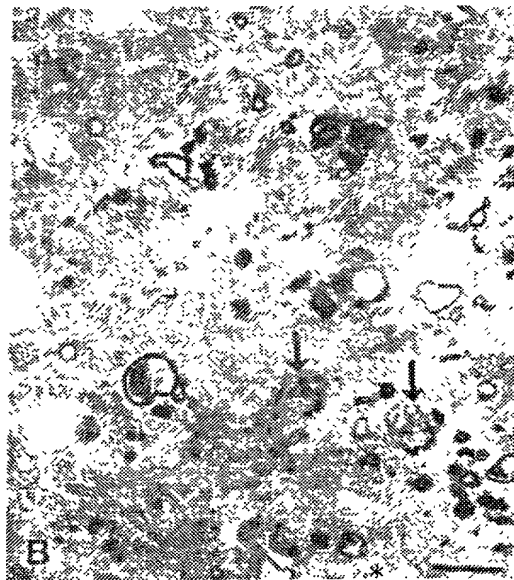


FIG. 3C

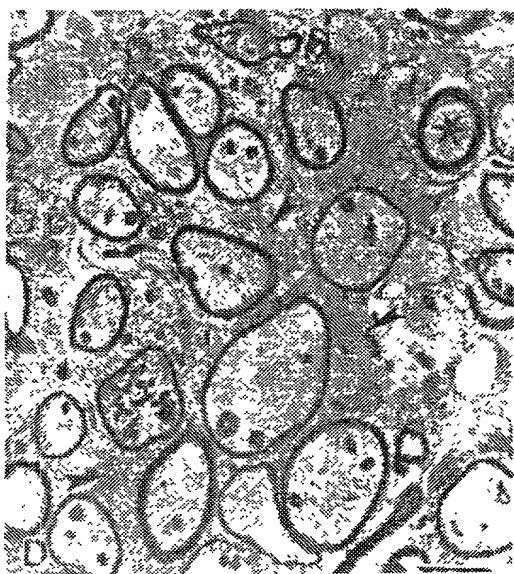


FIG. 3D

Figure 3

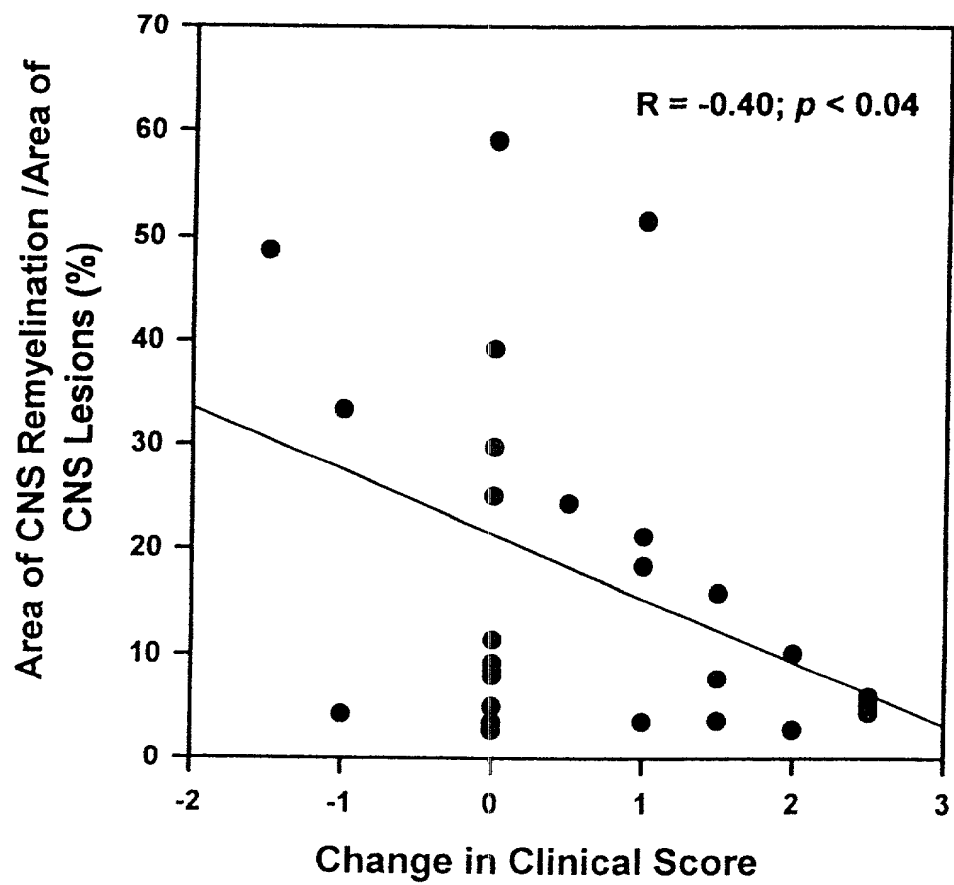


Figure 4

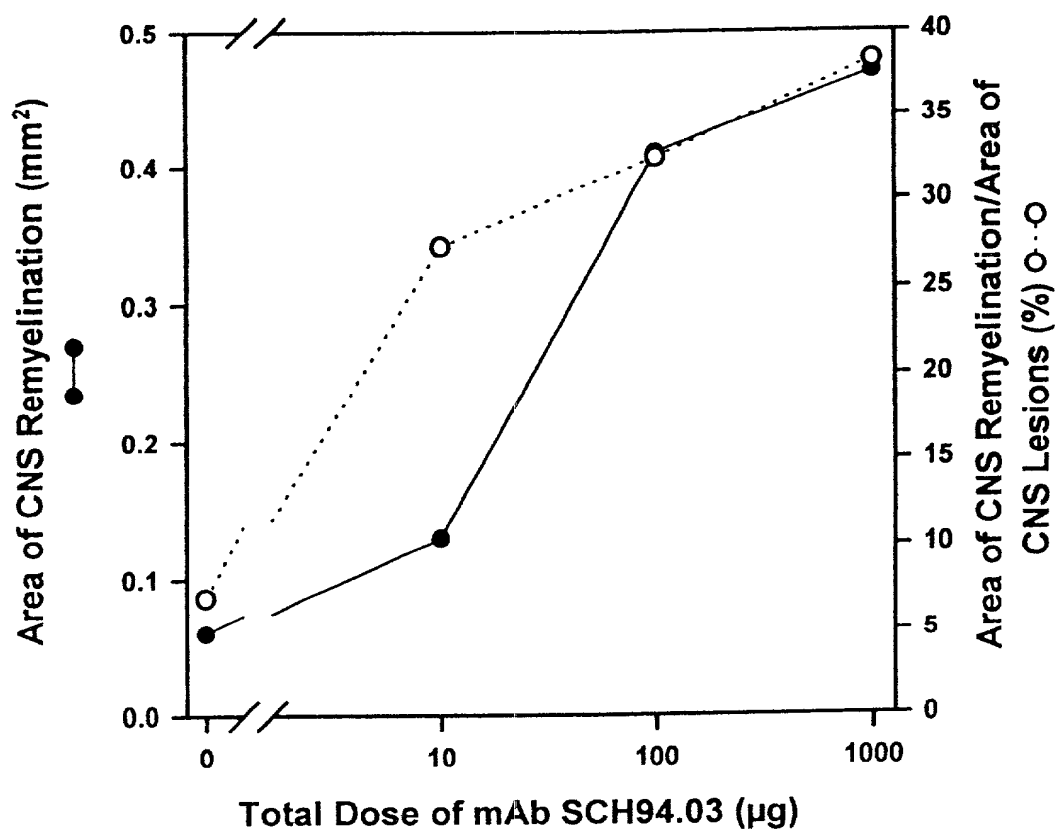


Figure 5

FIG. 6

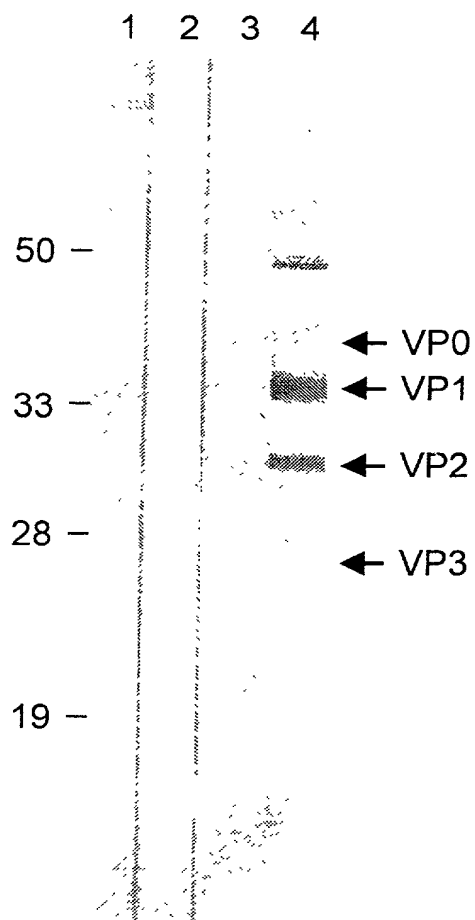


Figure 6

FIG. 7A

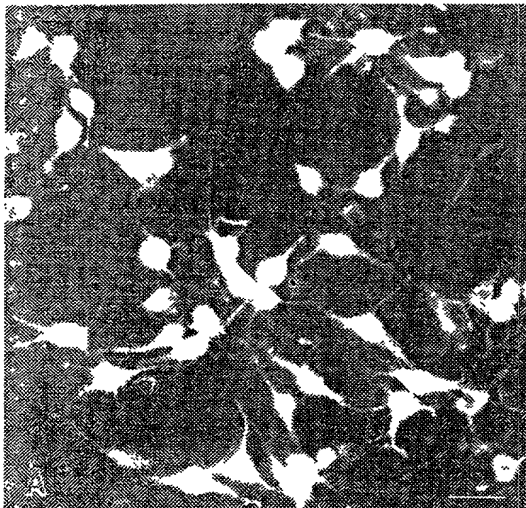


FIG. 7B

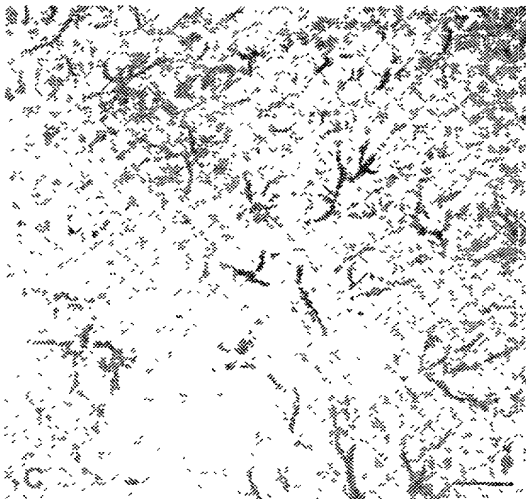


FIG. 7C

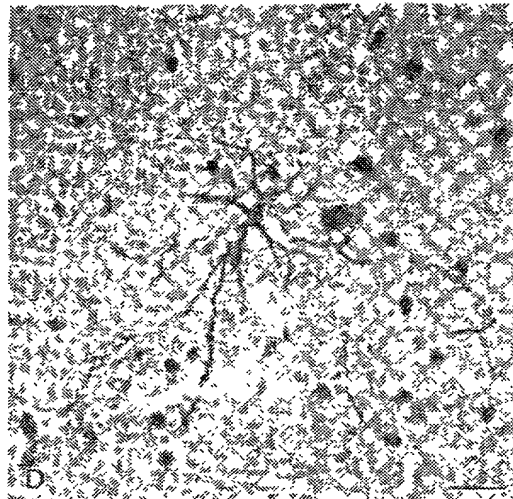


FIG. 7D

Figure 7

FIG. 8A

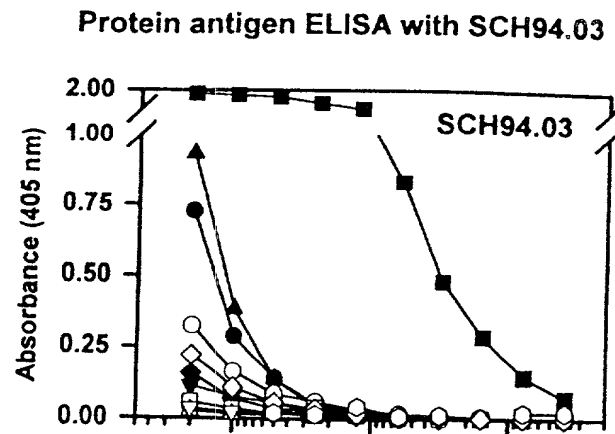


FIG. 8B

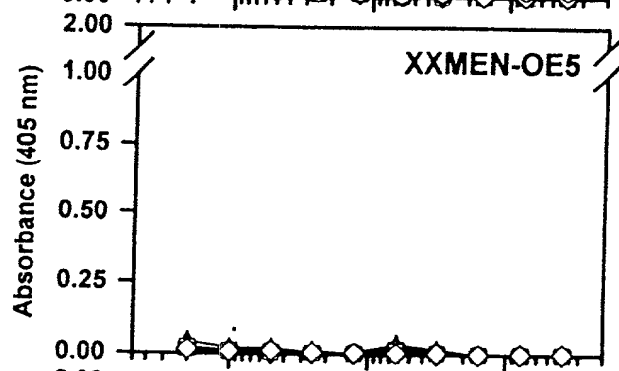
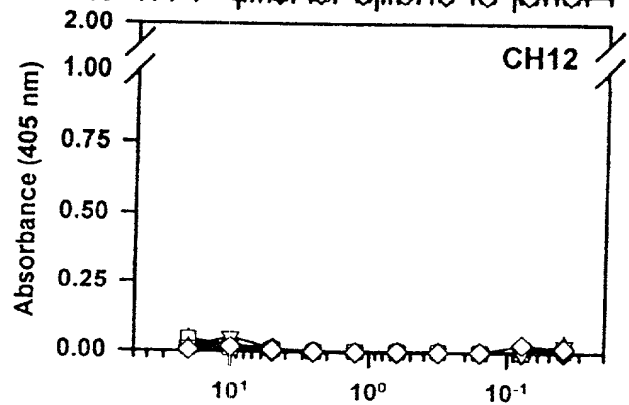


FIG. 8C

Antibody concentration ($\mu\text{g/ml}$)

Antigen:

- | | |
|-----------------|---------------|
| ● KLH | ○ actin |
| ■ spectrin | □ lysozyme |
| ▲ hemoglobin | △ transferrin |
| ▼ vimentin | ▽ myosin |
| ◆ thyroglobulin | ◇ tubulin |

Figure 8

ELISA with SCH94.03 F(ab₂)' fragments

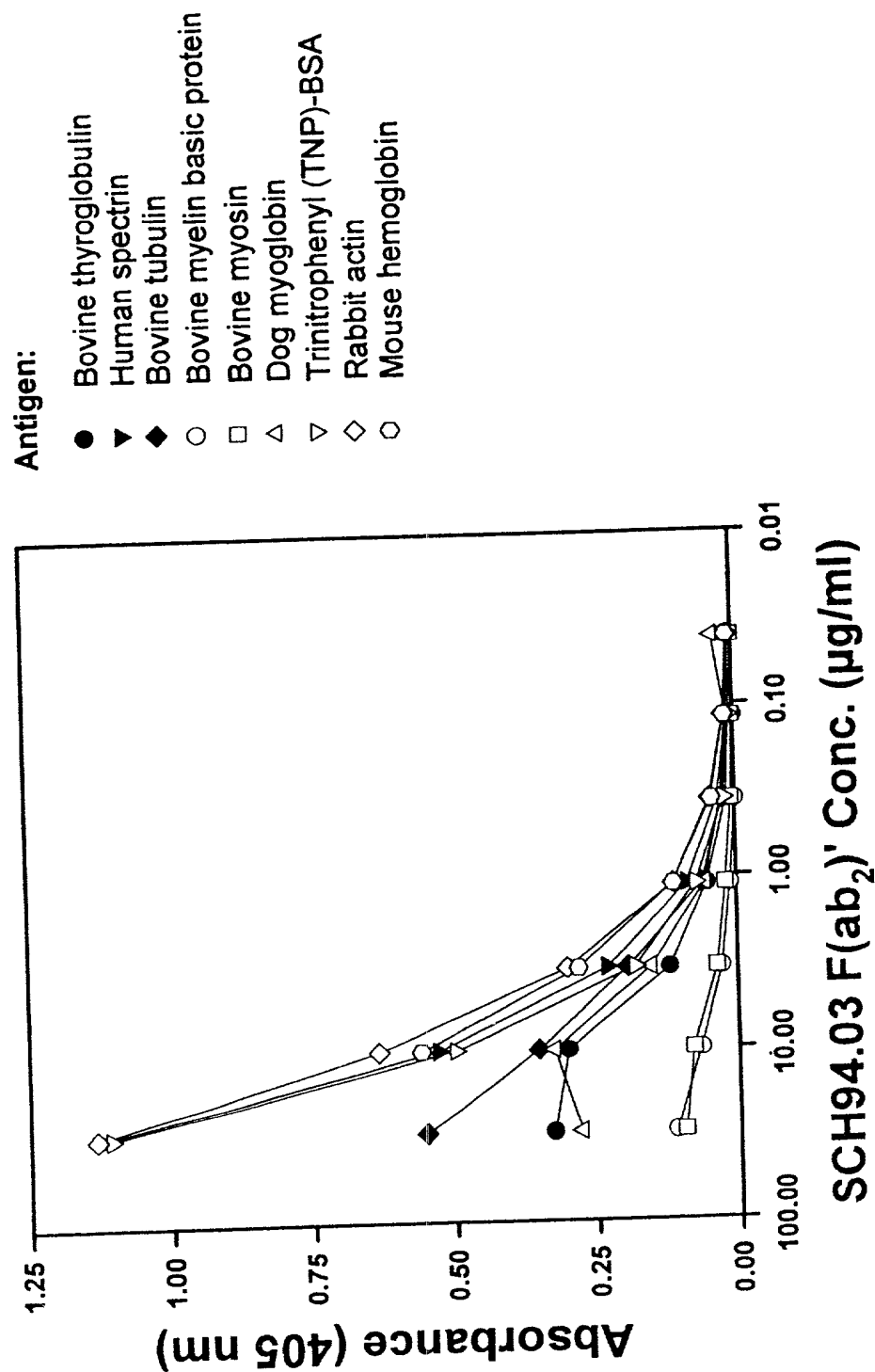


Figure 9

FIG. 10A

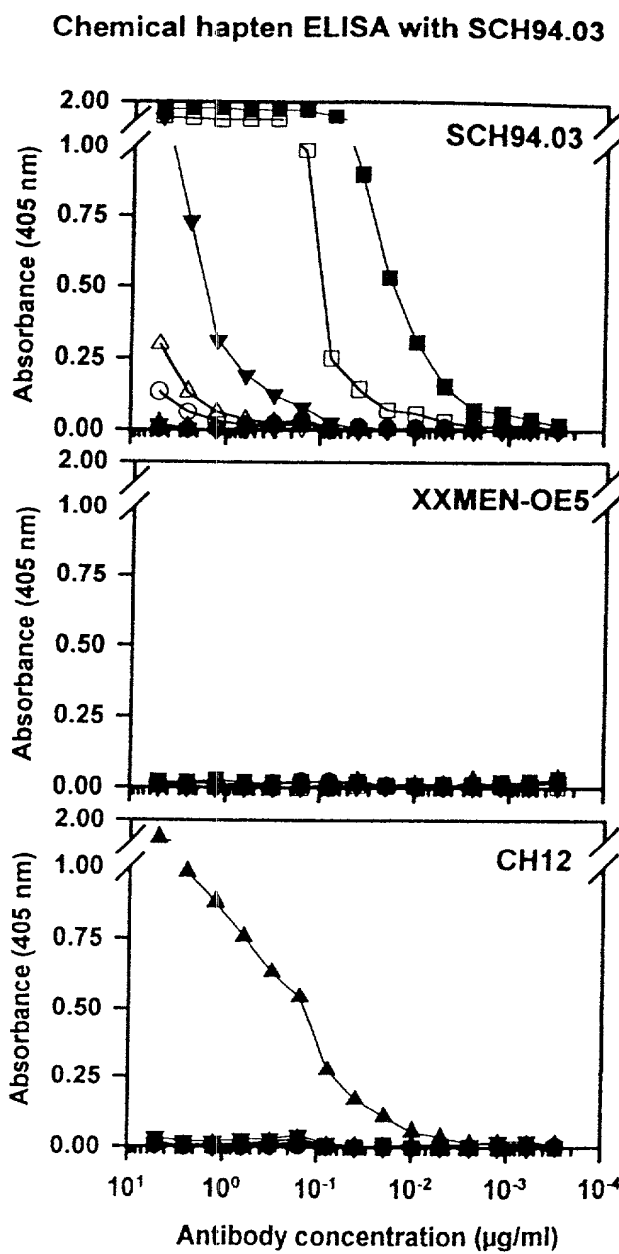


FIG. 10B

FIG. 10C

Hapten:

- | | | | |
|---|------|---|-----|
| ● | none | ○ | Ars |
| ■ | FL | □ | NP |
| ▲ | TMA | △ | TNP |
| ▼ | PhOx | ▽ | PC |

Figure 10

Figure 11A

Figure 11A

Immunoglobulin Heavy Chain Variable Region Sequence of SCH94.03

		Leader region																											
		-9																											
		1																											
SCH94.03	CH12	M	G	W	S	C	I	I	L	F	L	V	A	A	A	T	G	V	H	S	Q	V	Q	L	Q	Q	P	G	
germline V23		ATG	GGA	TGG	ACC	TGT	ATC	ATC	CTC	CTT	TTG	GTA	GCA	GCT	ACA	GGT	GTC	CAC	TCC	CAG	GTC	CAA	CTG	CAG	CAG	CCT	GGG		

		CDR1																											
		30																											
SCH94.03	CH12	T	E	L	V	K	P	G	A	S	V	K	L	S	C	K	A	S	G	Y	T	F	T	S	Y	W	M	H	
germline V23		ACT	GAA	CTG	GTG	ANG	CCT	GGG	GCT	TCA	GTG	AAG	CTG	TCC	TGC	AAG	GCT	TCT	GGC	TAC	ACC	TTT	ACC	AGC	ATG	TGG	ATG	CAC	

		CDR2																											
		60																											
SCH94.03	CH12	W	V	K	Q	R	P	G	Q	G	L	E	W	I	G	N	I	N	P	S	N	G	G	T	N	Y	N	E	
germline V23		TGG	GTG	ANG	CAG	AGG	CCT	GGA	CAA	GGC	CTT	GAG	TGG	ATT	GGA	AAT	ATT	AAT	CCT	AGC	AAT	GGT	GGT	ACT	AAC	TAC	AAT	GAG	

		CDR2																											
		70																											
SCH94.03	CH12	K	F	K	S	K	A	T	L	T	V	D	K	S	S	S	T	A	Y	M	Q	L	S	L	T	S	E		
germline V23		AAG	TTC	ANG	ACC	AAG	GCC	ACA	CTG	ACT	GTA	GAC	AAA	TCC	TCC	AGC	ACA	GCC	TAC	ATG	CAG	CTC	AGC	AGC	CTG	ACA	TCT	GAG	

		CDR3																											
		90																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											
germline V23		GAC	TCT	GGG	GTC	TAT	TAT	TGT	GCA	AGA	CGG	GCC	CC	T	TAC	TAC	AGT	AGG											

		CDR3																											
		100C 100B																											
SCH94.03	CH12	D	S	A	V	Y	Y	C	A	R	R	A	P	Y	Y	G	S	R											

Figure 11B

Figure 12

[illegible]

Figure 13

1199-1-005CIP2

(Sheet 15 of 87)

Leader Peptide													
germline V1 A2B5	-19	M	K	L	L	W	V	F	L	L	L	H	G
		ATG	AAG	TTG	TGG	TGA	TTT	TTT	CTT	TGA	ACA	CTT	TTA
germline V1 A2B5	10	G	L	V	Q	P	G	G	G	G	G	T	S
		GGC	TTG	GTA	CAG	CCT	GGG	GGT	TCT	CTG	AGA	CTC	TCC
germline V1 A2B5	40	R	Q	P	G	K	R	L	E	W	I	A	A
		CGC	CAG	CCT	CCA	GGG	AAG	AGA	CTG	GAG	TGG	ATT	GCT
germline V1 A2B5	70	V	K	G	R	F	I	V	S	R	D	T	S
		GTC	AAG	GGT	CGG	TTT	ATC	GTC	TCC	AGA	GAC	ACT	TCC
germline V1 A2B5	90	A	I	Y	Y	C	A	R	D	A	R	Q	L
		GCC	ATT	TAT	TAC	TGT	GCA	AGA	GAT	GCA	C	G	L
germline V1 A2B5	100	G	L	G	L	G	L	P	A	W	F	A	Y
		GCC	TGG	TTT	GCT	TAC	TGG	GGC	CAA	GGG	ACT	CTG	GTC
germline V1 A2B5	110	V	S	A	GTC	TCT	GCA						

Figure 14

Figure 16

[illegible]

Figure 17

FIG. 18

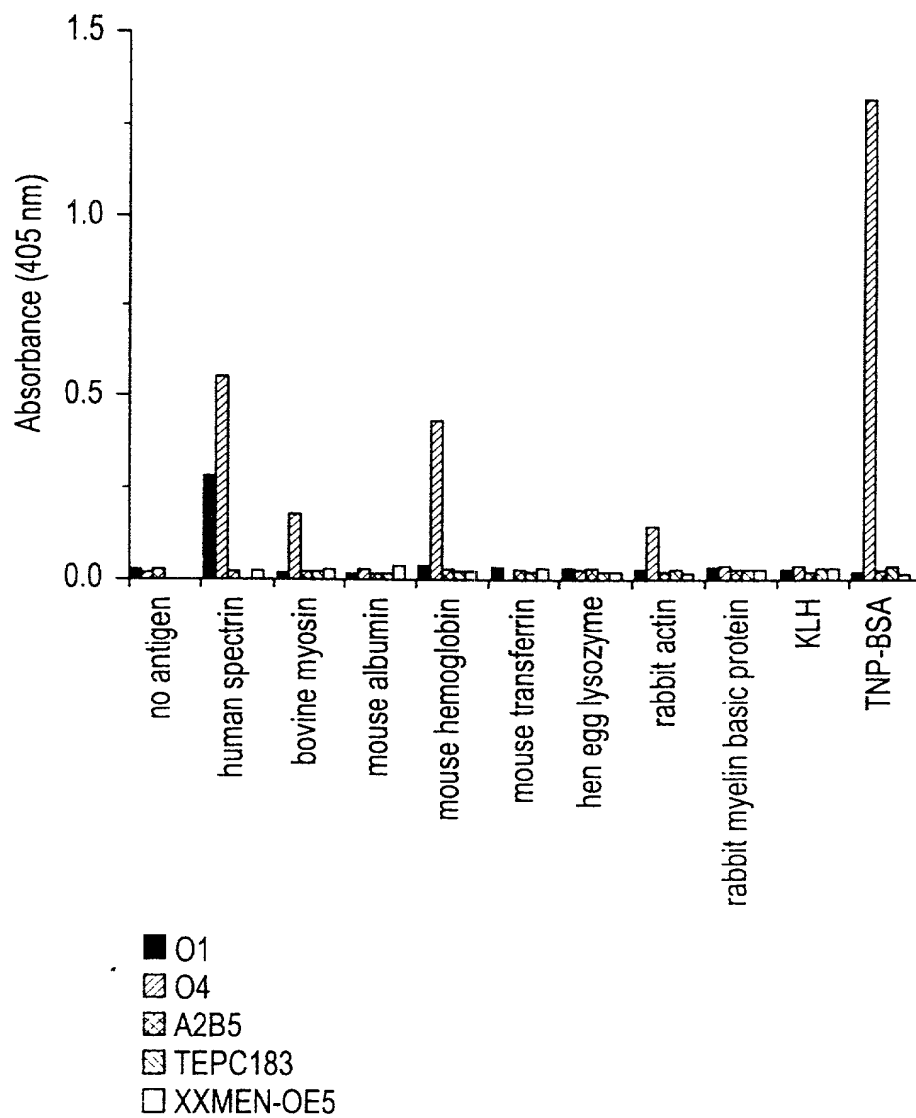


Figure 18

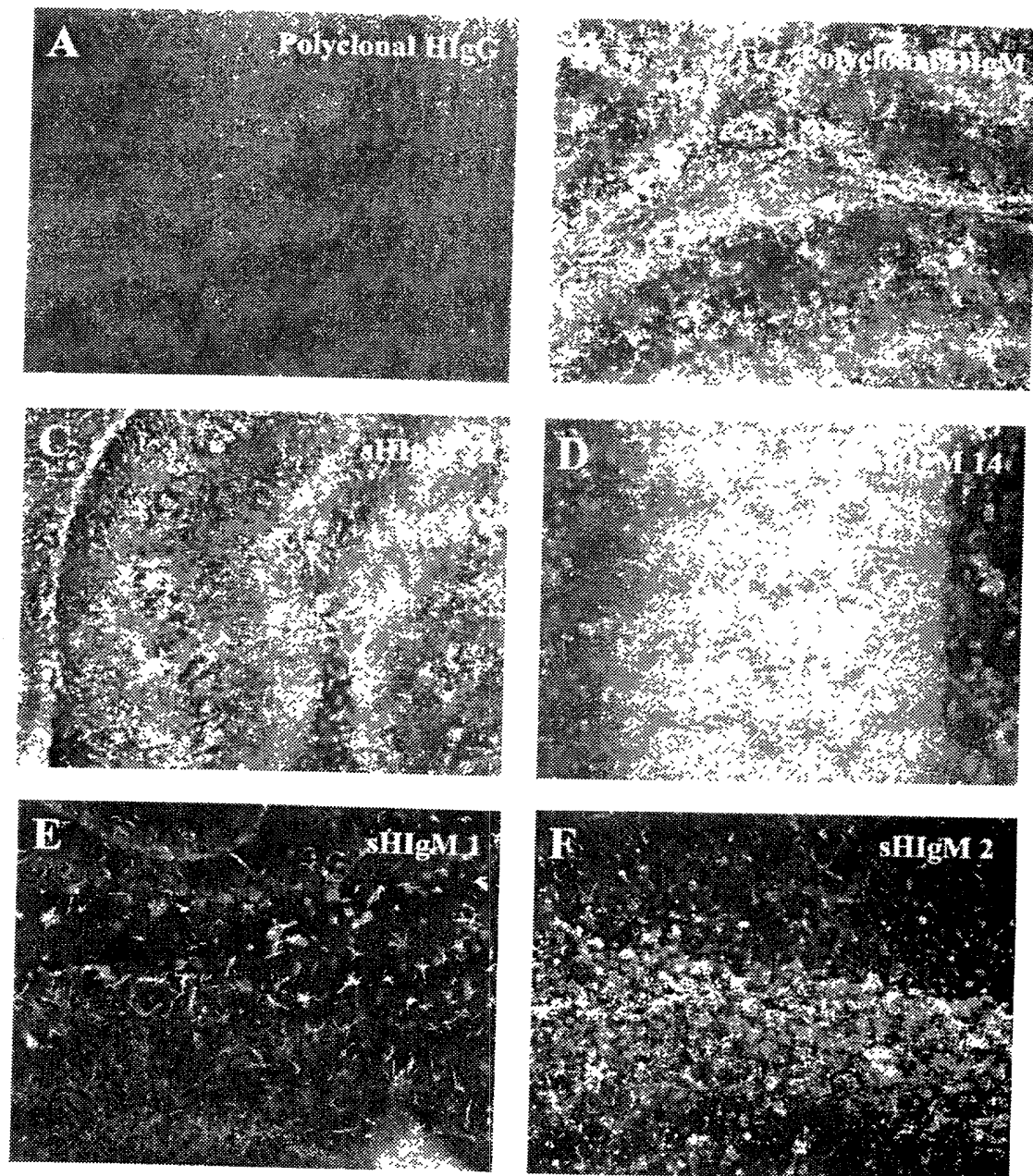


Figure 19

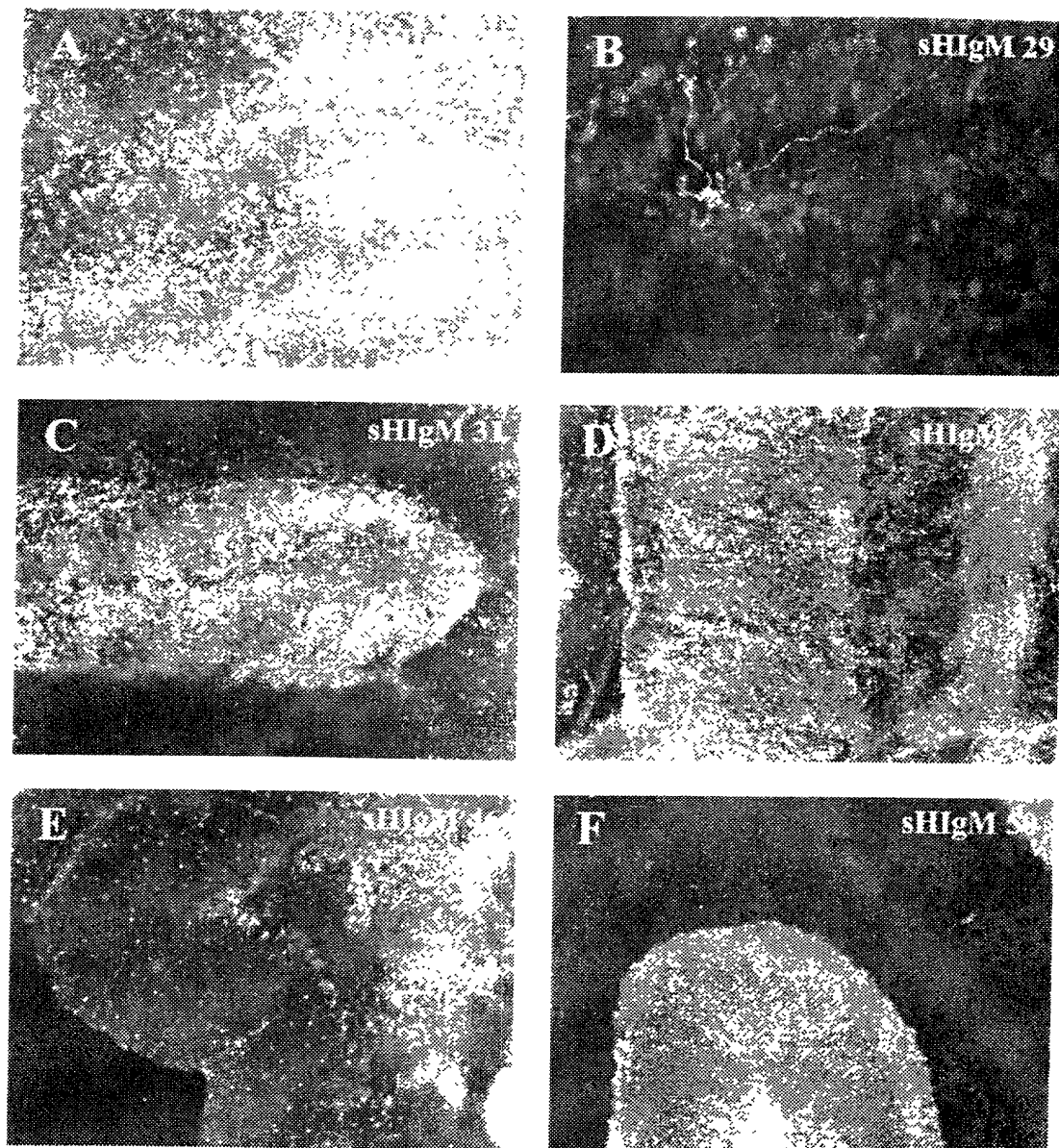


Figure 20

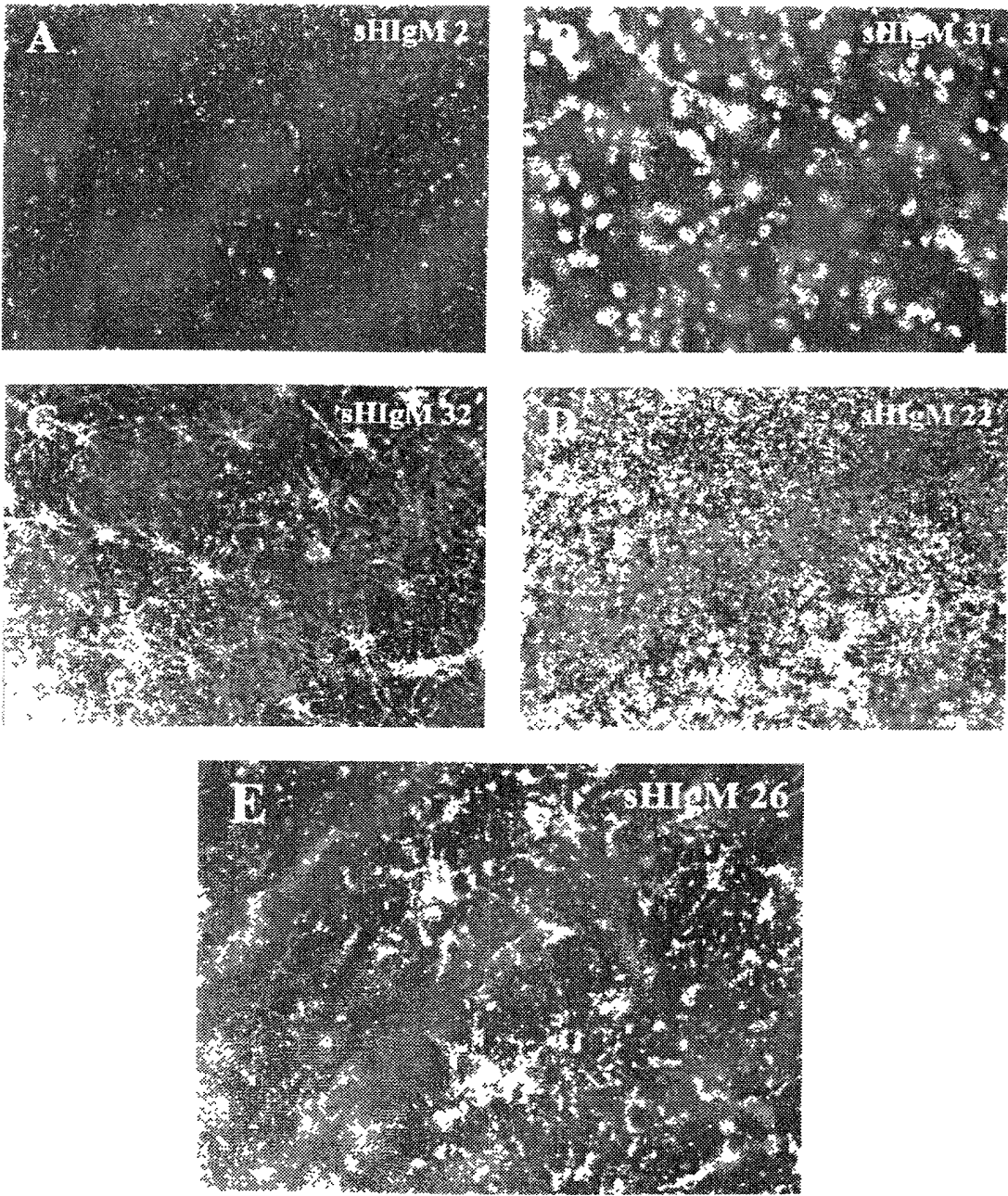


Figure 21

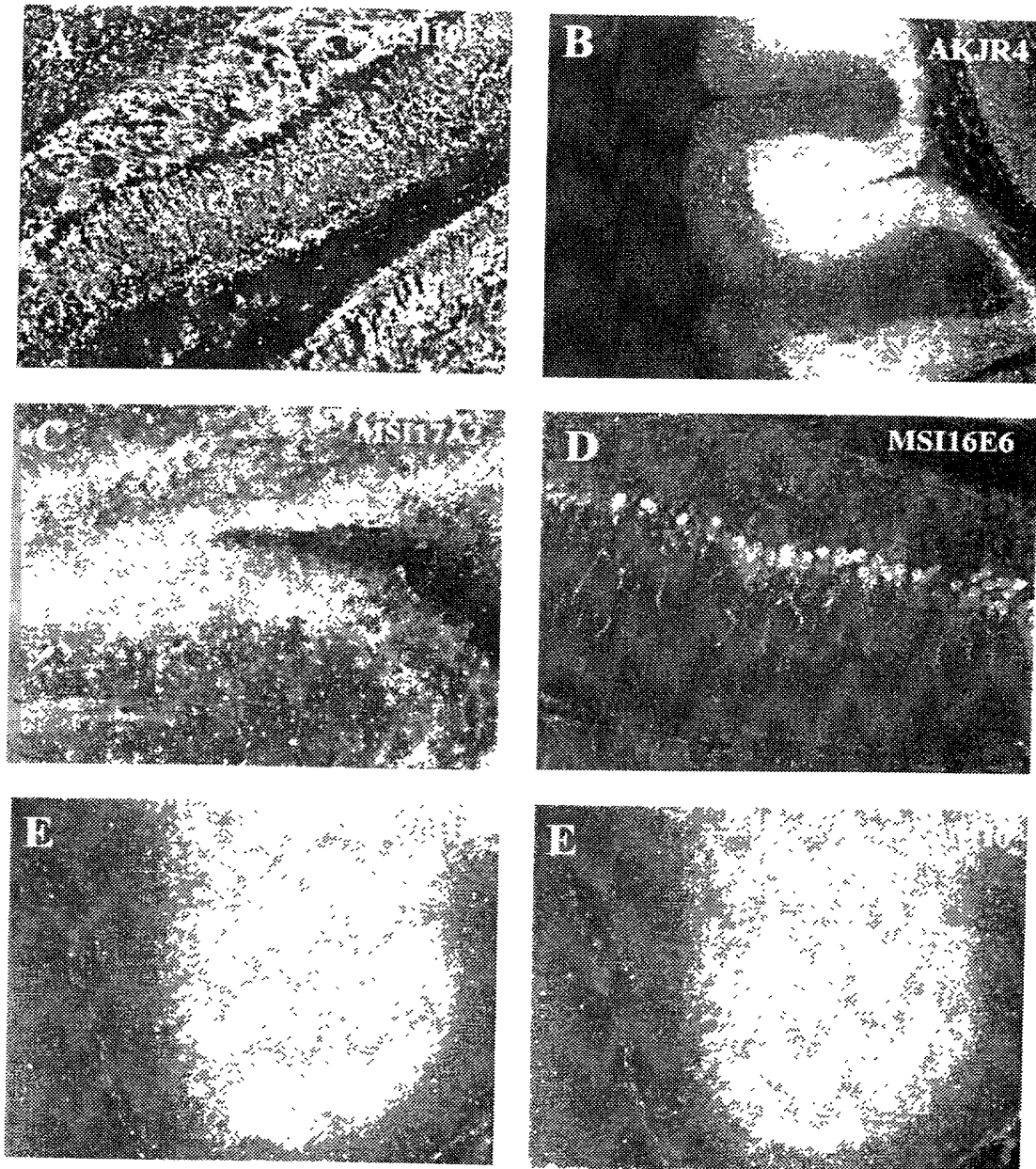


Figure 22

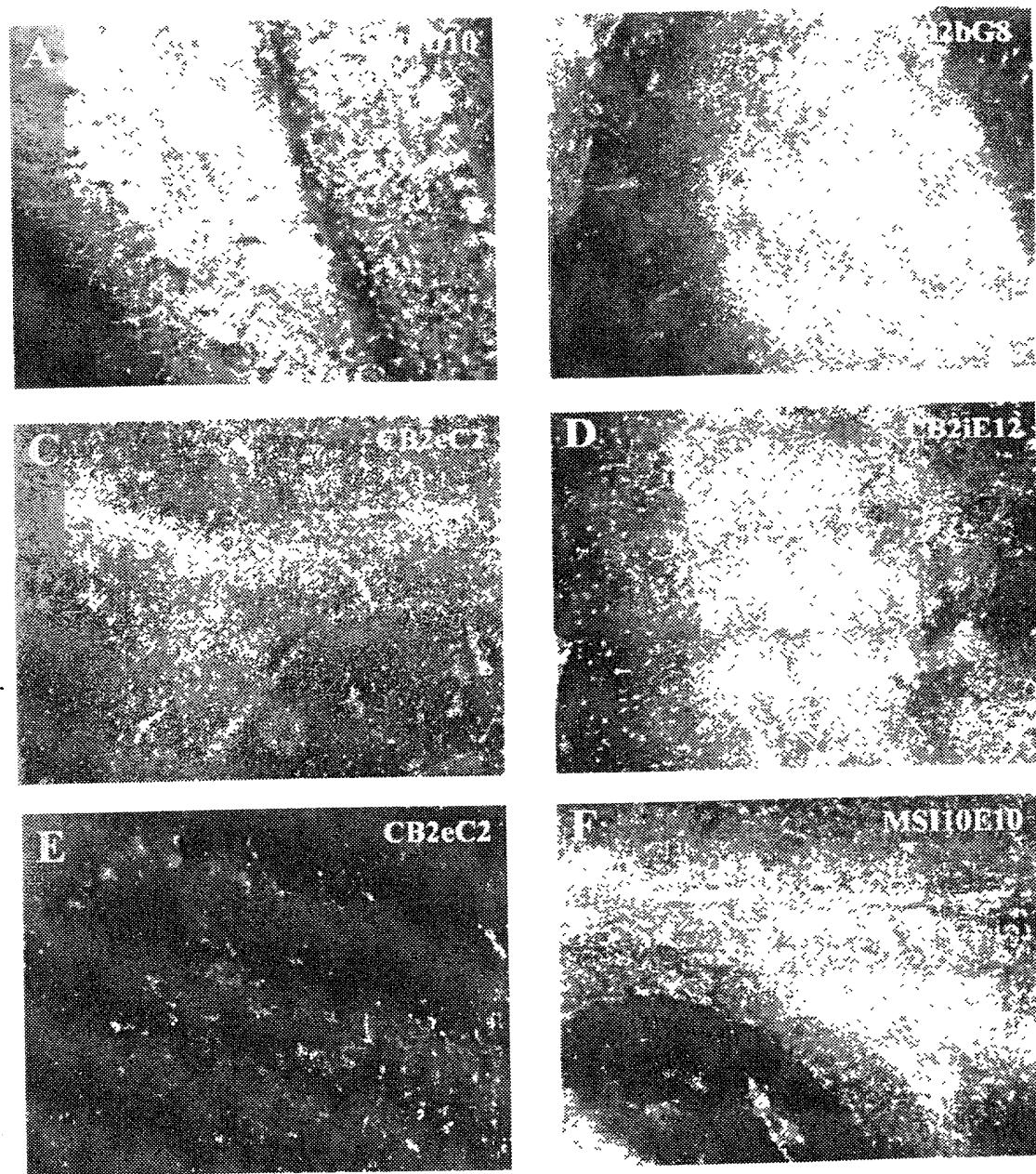
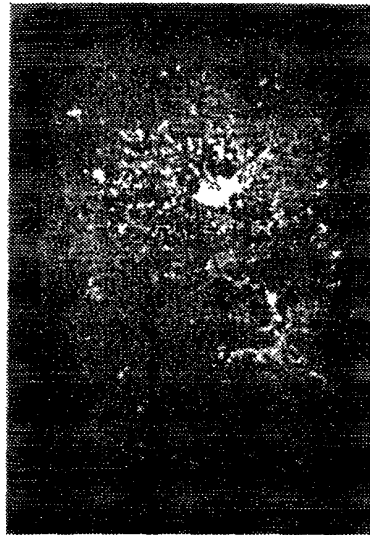


Figure 23

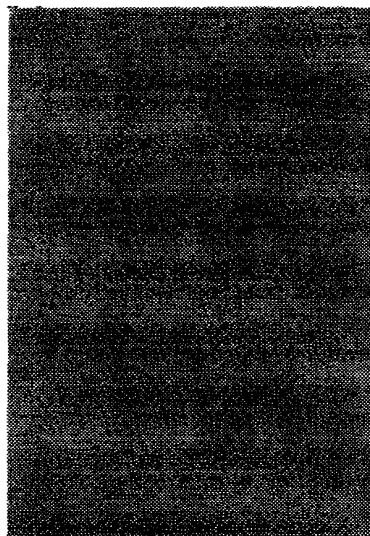
Human Antibodies Bind to Oligodendrocytes in Culture



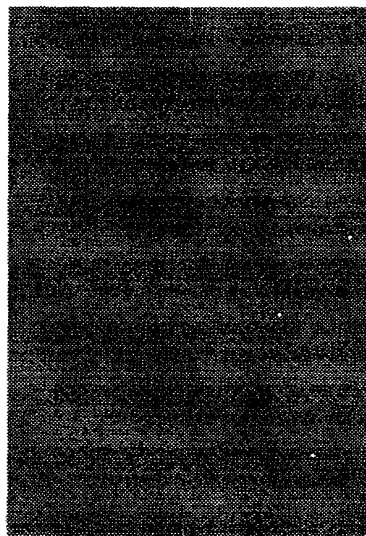
Polyclonal hIgM



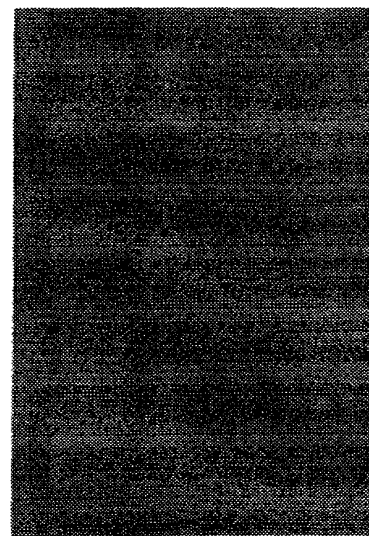
MBP+ 0L



Polyclonal hIgG



sHlgM 1



sHlgM 2

Figure 24

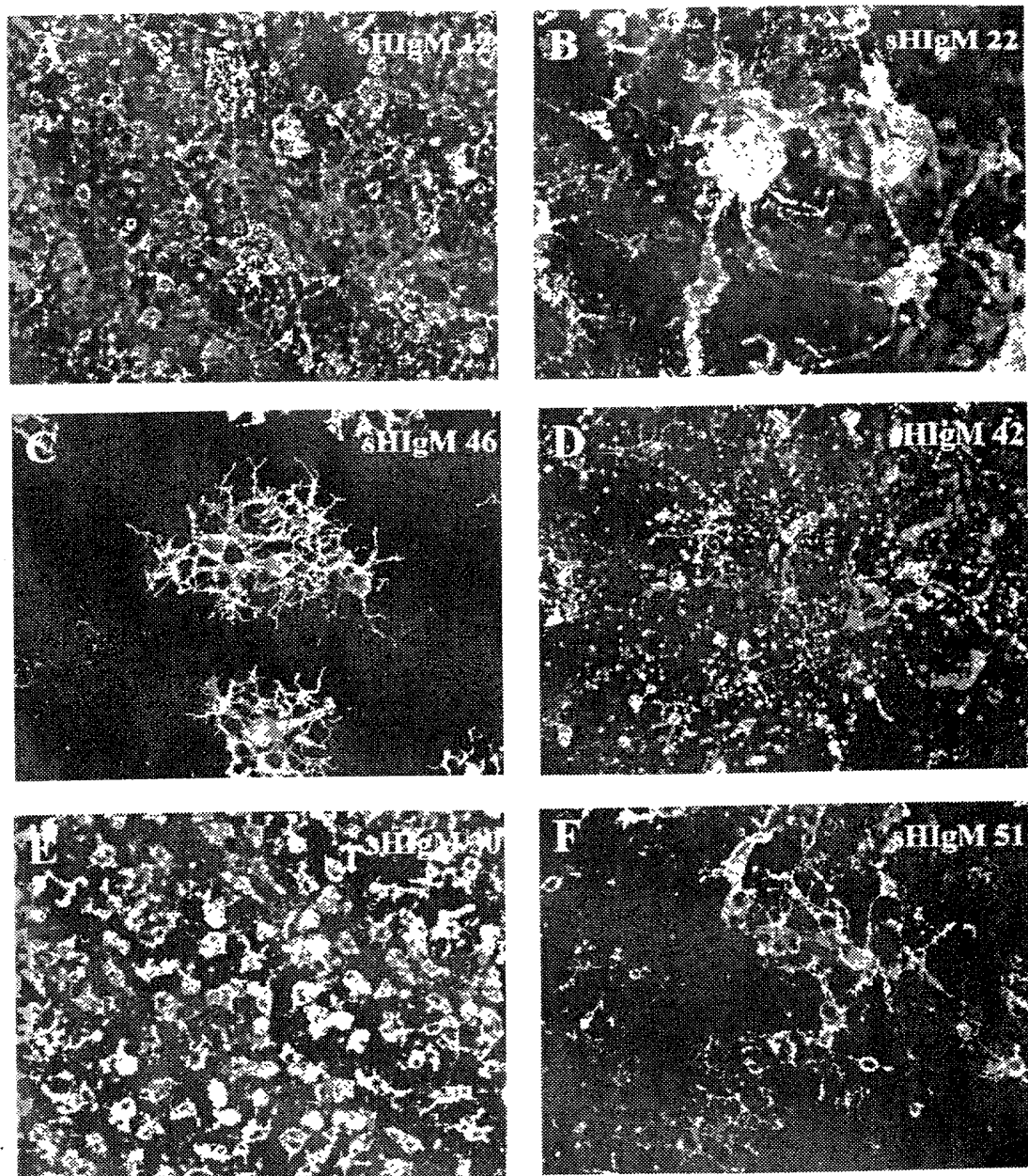


Figure 25

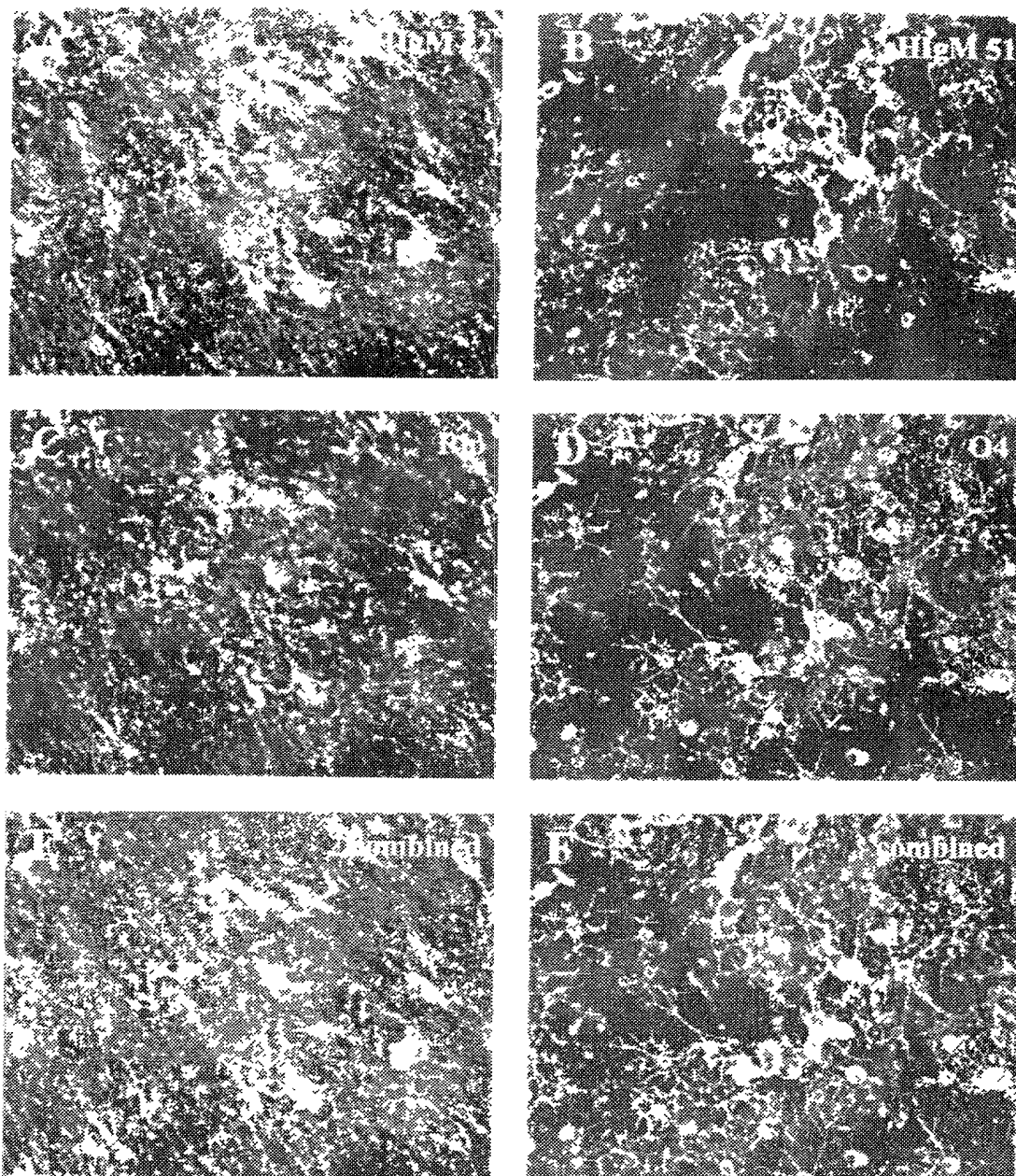


Figure 26

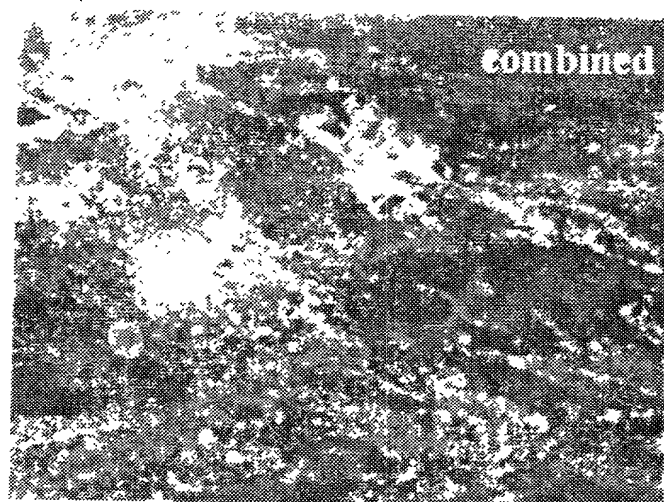
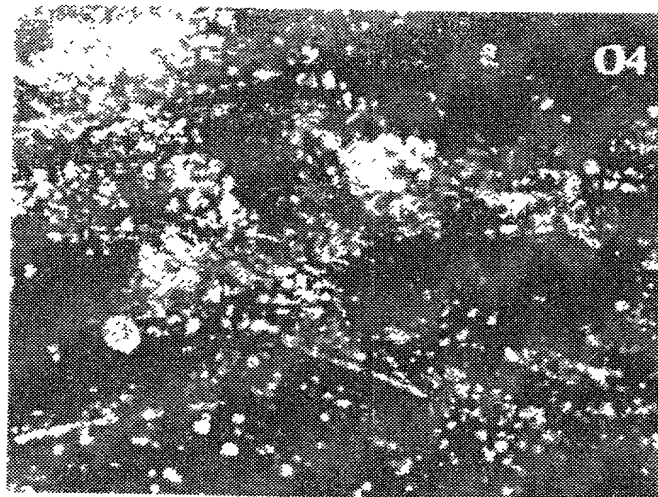
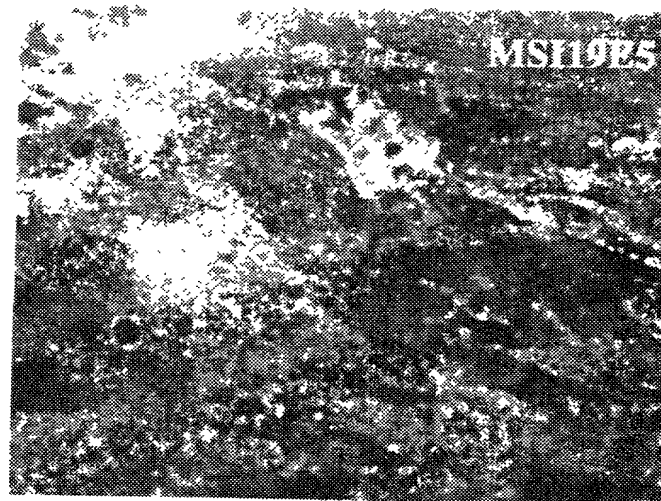


Figure 27

sHlgMs Characterized by Binding to SCH via ELISA

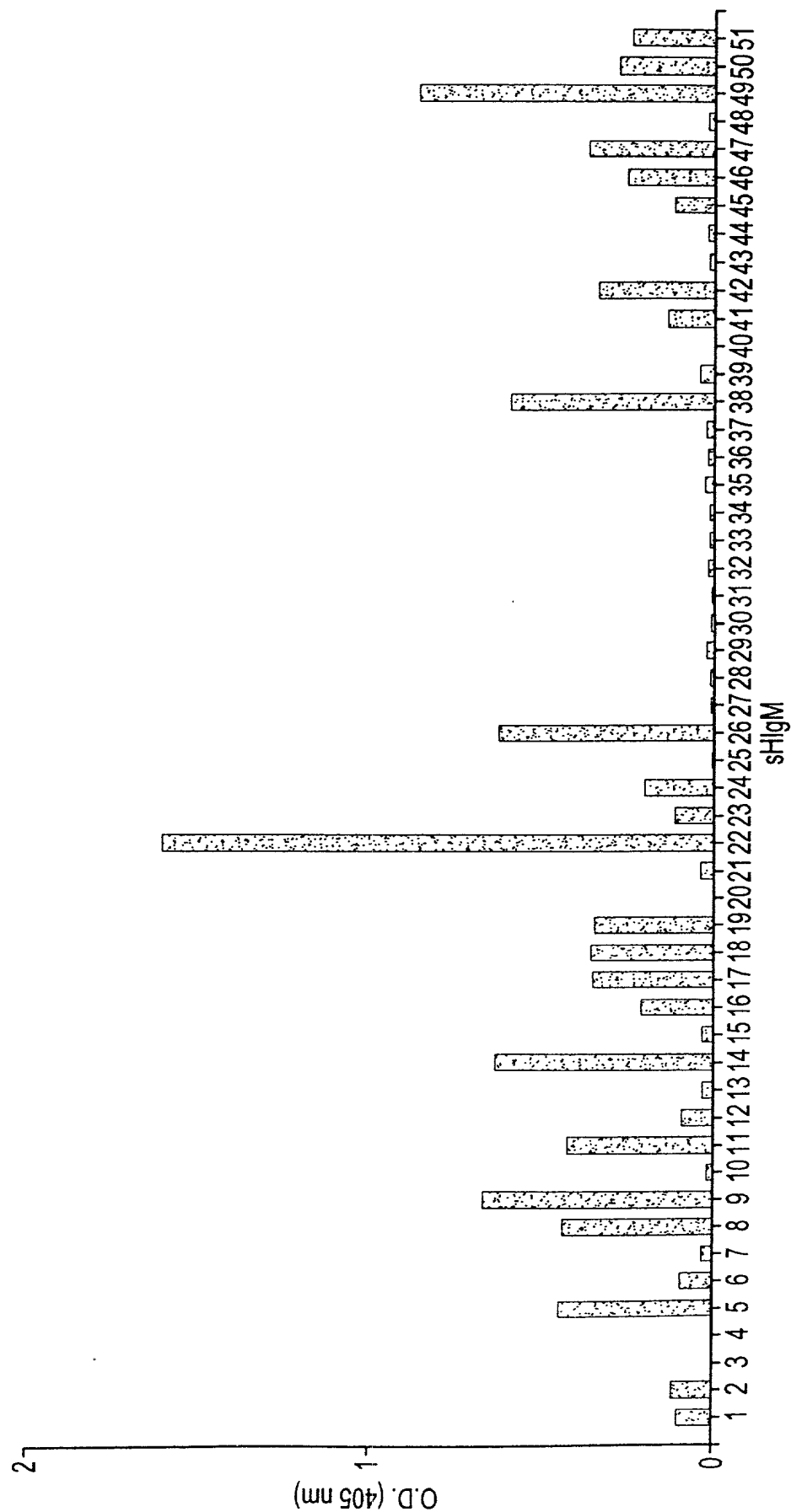
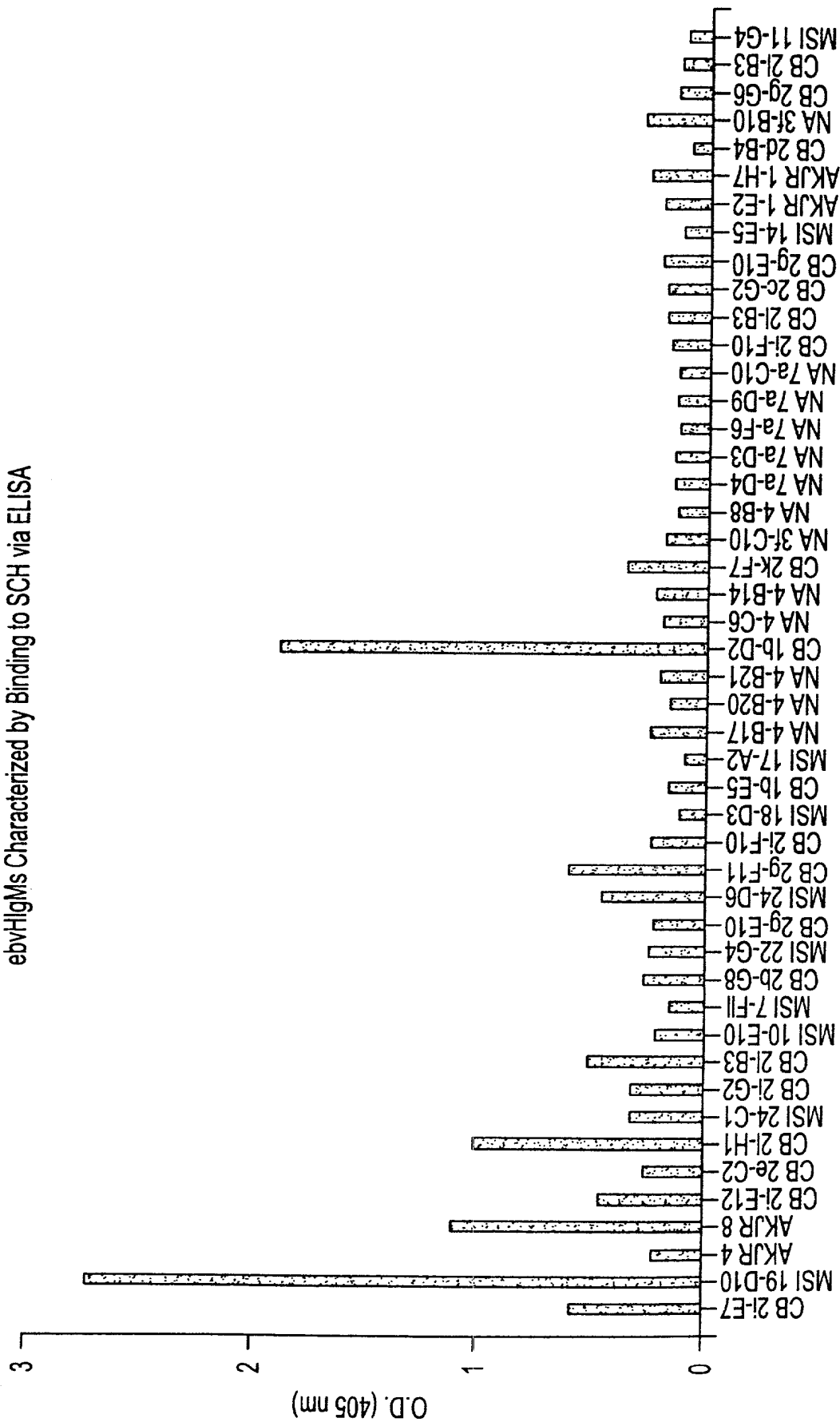


Figure 28

ebvHlgMs Characterized by Binding to SCH via ELISA



Clone Name

Figure 29

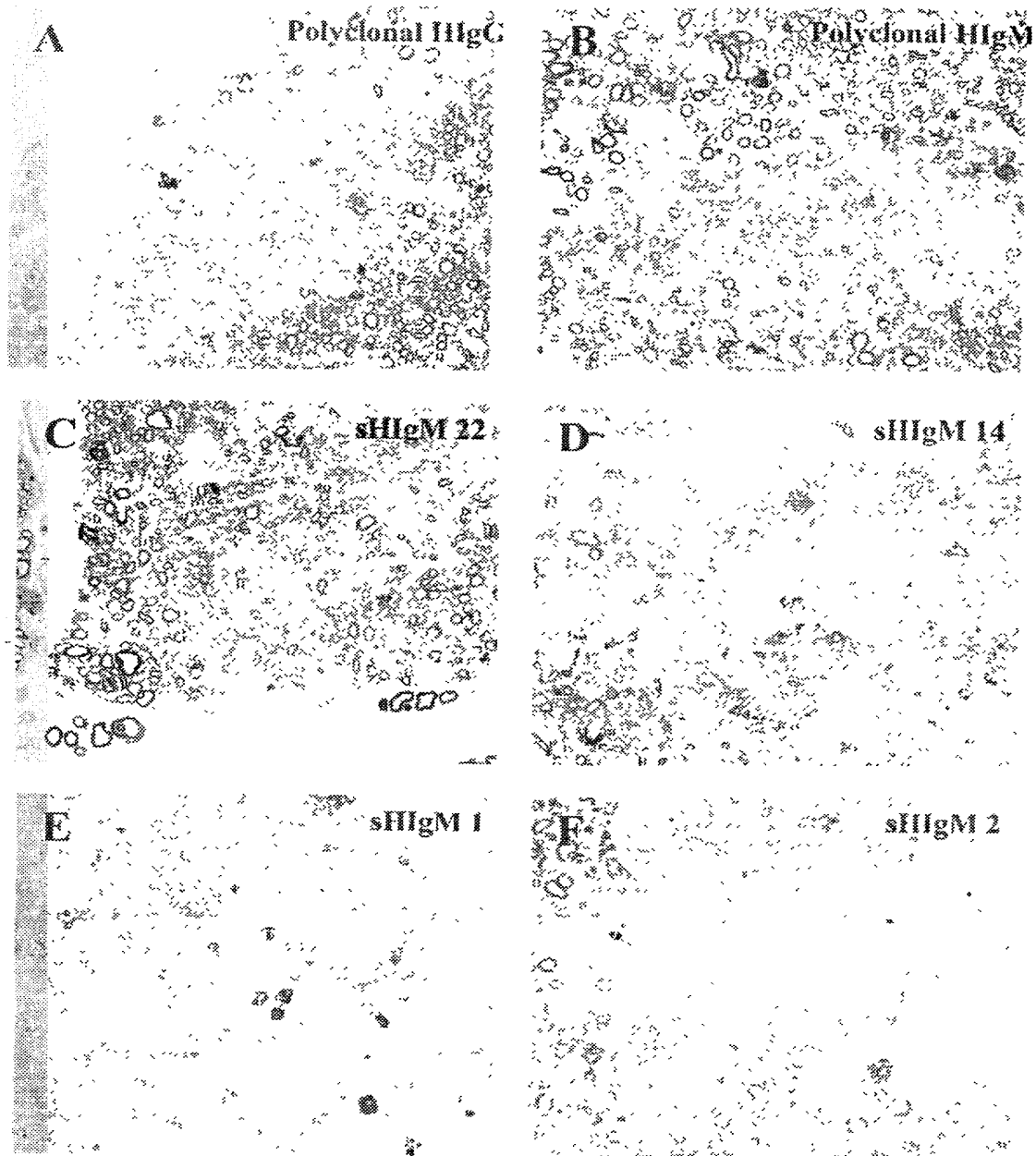


Figure 30



Figure 31

Lysolecithin Experiment 21 Day Experiment

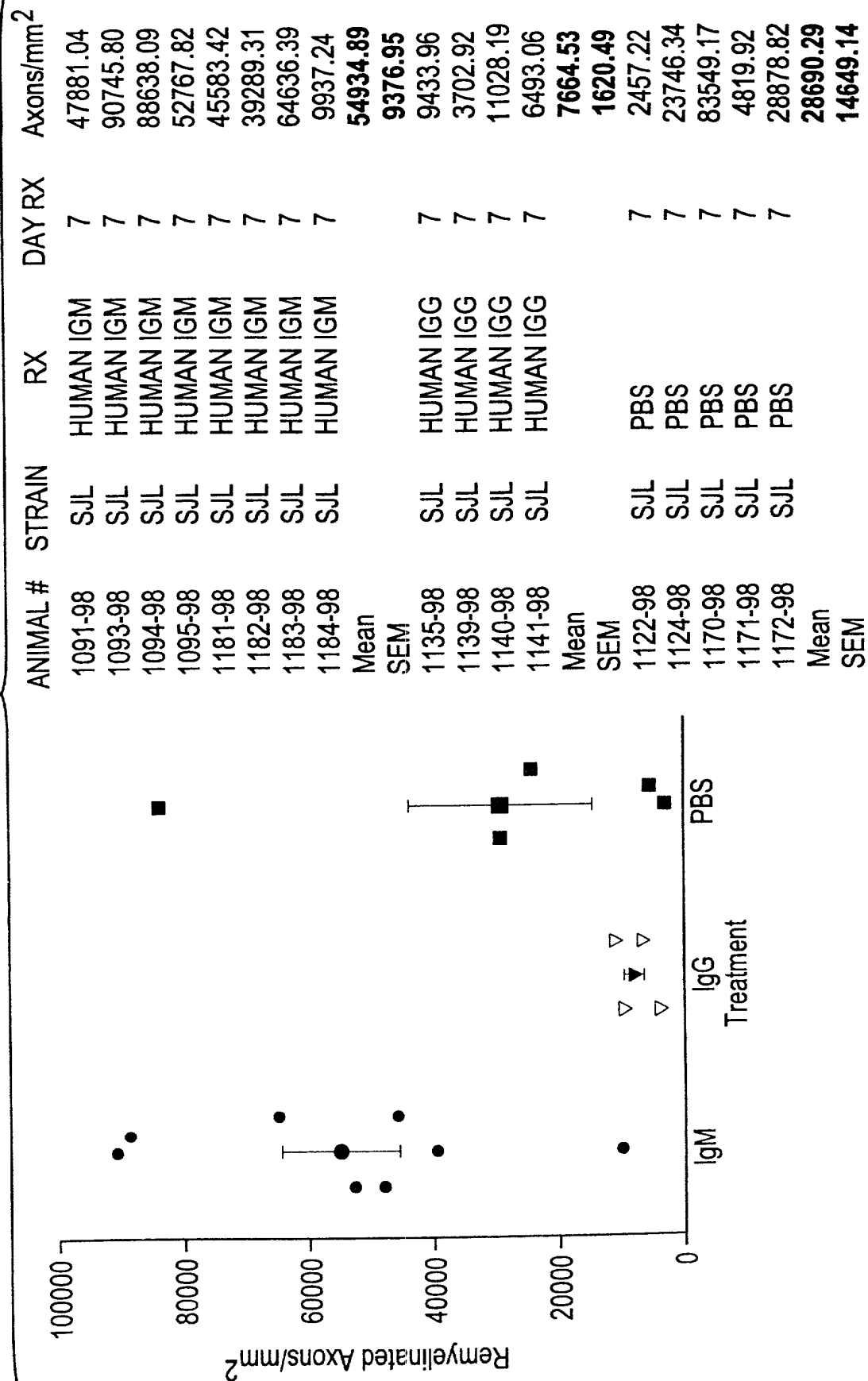


Figure 32

Hapten Elisa

● KLH
 ○ TMA
 ▼ ARS
 ◇ PC
 ■ TNP
 □ PhoX
 ◆ NP
 ◇ FITC
 ▲ DNP

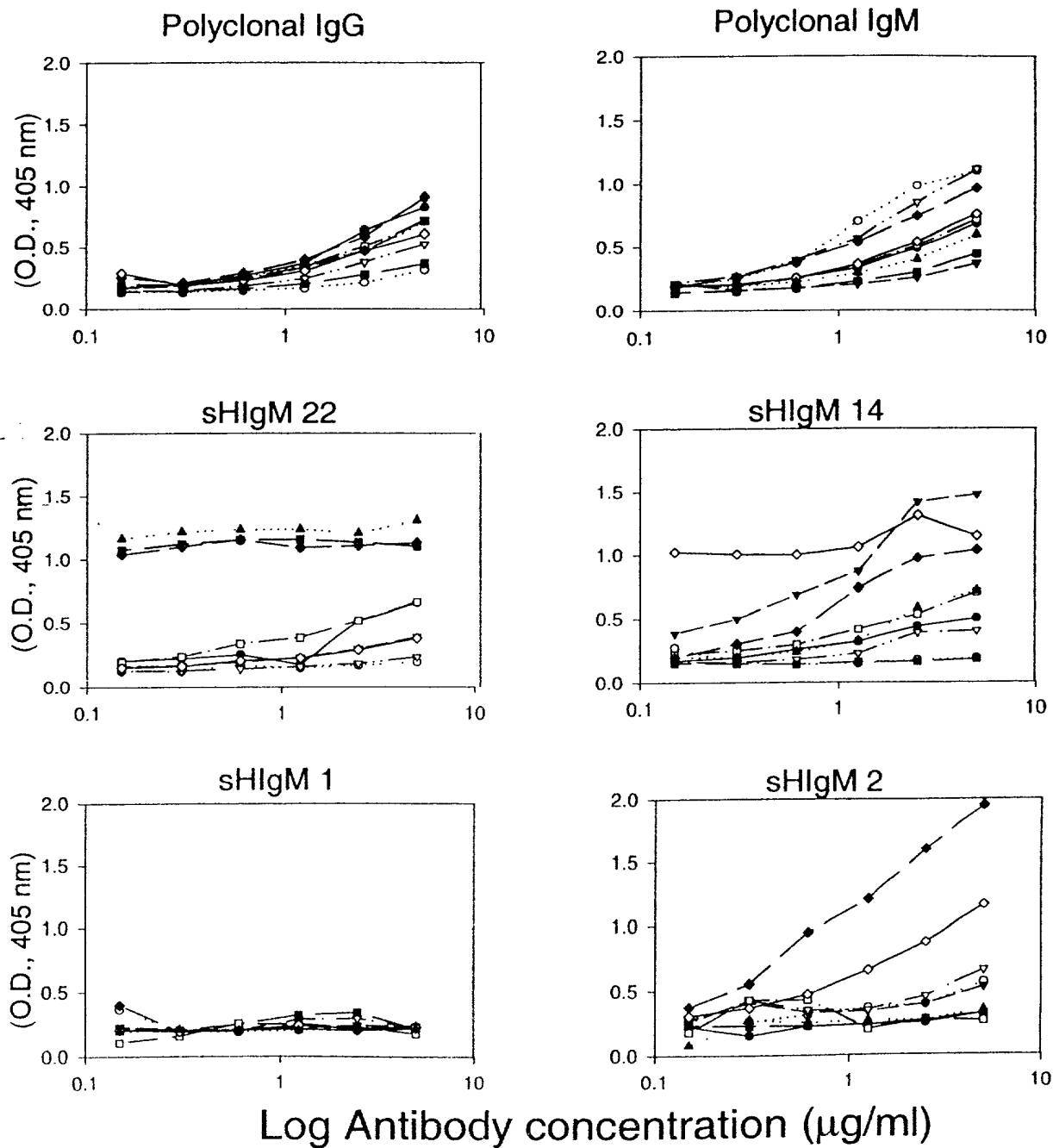


Figure 33

Protein Elisa

- Spectrin
- Rbt Actin
- ▼ Rbt MBP
- ▽ Bo Transferrin
- Myosin
- Mo Hb
- ◆ HEL
- ◇ BSA
- ▲ KLH
- △ Bo Vimentin

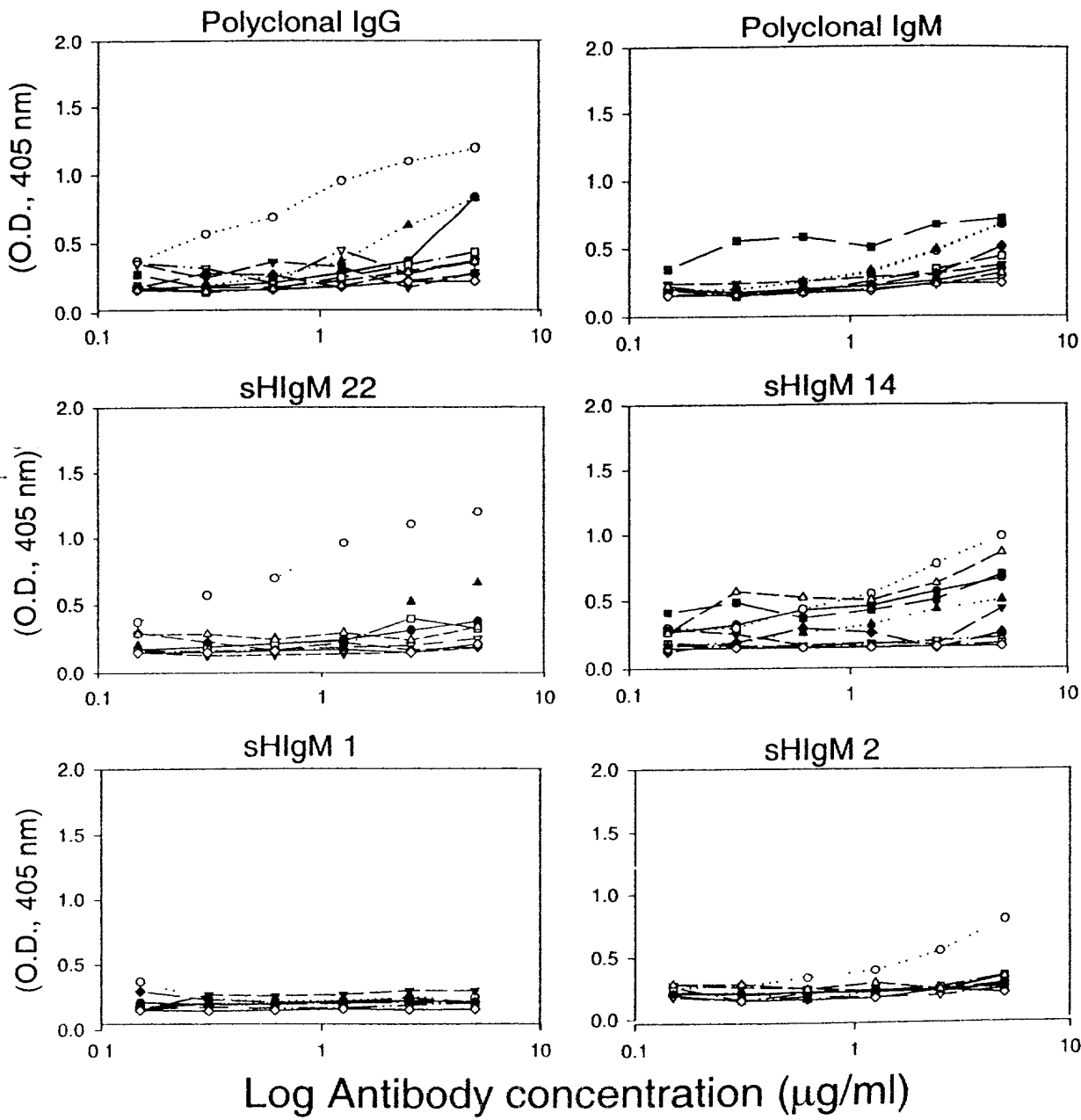


Figure 34

/FR1-----
 1 2 3 4 5 6 7 8 9 11 12 13 14 15 16
O S V L T O P P S V S A A P G
 CAG TCT GTG TTG ACG CAG CCG CCC TCA GTG TCT GCG GCC CCA GGA
 Clone I sH-IgM.22 Vλ G T T
 Clone II sH-IgM.22 Vλ G T T
 -----/CDR1-----
 17 18 19 20 21 22 23 24 25 26 27 27A 27B 28 29
Q K V T I S C S G S S S N I G
 CAG AAG GTC ACC ATC TCC TGC TCT GGA AGC AGC TCC AAC ATT GGG
 C
 C
 -----/FR2-----
 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44
N N F V S W Y O O L P G T A P
 AAT AAT TAT GTA TCC TGG TAC CAG CAG CTC CCA GGA ACA GCC CCC
 T
 T A
 A
 -----/CDR2-----
 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59
R(K) L L I Y D I T K R P S G I P
 AAA CTC CTC ATT TAT GAC AAT AAT AAG CGA CCC TCA GGG ATT CCT
 G T C
 T C
 -----/FR3-----
 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74
D R F S G S K S G T S A T L G
 GAC CGA TTC TCT GGC TCC AAG TCT GGC ACG TCA GCC ACC CTG GGC
 -----/CDR3-----
 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89
I T G L O T G D E A D Y Y C G(E)
 ATC ACC GGA CTC CAG ACT GGG GAC GAG GCC GAT TAT TAC TGC GGA
 A
 -----/FR4-----
 90 91 92 93 94 95 95A 95B 96 97 98 99 100 101 102
T W D S S L S A V V F G G G T
 ACA TGG GAT AGC AGC CTGT GTG GTA TTC GGC GGA GGG ACC
 AGT GC G
 AGT GC G
 -----/Cλ-----
 103 104 105 106 106A107 108 109 110
K L T V L G O P K
 AAG CTG ACC GTC CTA GGT CAG CCC AAG

Figure 36

Sequence of MSI 19-D10 Vh

```

FR1-----
 1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16
CAG GTG CAG CTG CAG GAG TCG GGC CCA GGA CTG GTG AAG CCT TCG GAG
 Q   V   Q   L   Q   E   S   G   P   G   L   V   K   P   S   E

-----/CDR1
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
ACC CTG TCC CTC ACC TGC ACT GTC TCT GGT GGC TCC ATC AGT AGT
 T   L   S   L   T   C   T   V   S   G   G   S   I   S   S

-----/FR2-----
32 33 34 35 36 37 38 39 40 41 42 43 44 45 46
TAC TAC TGG AGC TGG ATC CGG CAG CCC CCA GGG AAG GGA CTG GAG
 Y   Y   W   S   W   I   R   Q   P   P   G   K   G   L   E

-----/CDR2-----
47 48 49 50 51 52 53 54 55 56 57 58 59 60 61
TGG ATT GGG TAT ATC TAT TAC AGT GGG AGC ACC AAC TAC AAC CCC
 W   I   G   Y   I   Y   Y   S   G   S   T   N   Y   N   P

-----/FR3-----
62 63 64 65 66 67 68 69 70 71 72 73 74 75 76
TCC CTC AAG AGT CGA GTC ACC ATA TCA GTA GAC ACG TCC AAG AAC
 S   L   K   S   R   V   T   I   S   V   D   T   S   K   N

-----
77 78 79 80 81 82 82A 82B 82C 83 84 85 86 87 88
CAG TTC TCC CTG AAG CTG AGC TCT GTG ACC GCT GCG GAC ACG GCC
 Q   F   S   L   K   L   S   S   V   T   A   A   D   T   A

-----/CDR3-----
89 90 91 92 93 94 95 96 97 98 99 100 100A100B100C
GTG TAT TAC TGT GCG AGG TCG GCA CAG CAG CAG CTG GTA TAC TAC
 V   Y   Y   C   A   R   S   A   Q   Q   Q   L   V   Y   Y

-----/FR4-----/Cμ-
100D 101 102 103 104 105 106 107 108 109 110 111 112 113 114
TTT GAC TAC TGG GGC CAG GGA ACC CTG GTC ACC GTC TCC TCA GGG
 F   D   Y   W   G   Q   G   T   L   V   T   V   S   S   G

```

Figure 37

Sequence of MSI 19-D10 V_K

FR 1-----
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 GAC ATC GTG ATG ACC CAG TCT CCA GAC TCC CTG GCT GTG TCT CTG
 D I V M T Q S P D S L A V S L

-----/ **CDR1** -----
 16 17 18 19 20 21 22 23 24 25 26 27 27A 27B 27C
 GGC GAG AGG GCC ACC ATC AAC TGC AAG TCC AGC CAG AGT GTT TTA
 G E R A T I N C K S S Q S V L

-----/ **FR2** -----
 27D 27E 27F 28 29 30 31 32 33 34 35 36 37 38
 TAC AGC TCC AAC AAT AAG AAC TAC TTA GCT TGG TAC CAG CAG
 Y S S N N K N Y L A W Y Q Q

-----/ **CDR2** -----
 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53
 AAA CCA GGA CAG CCT CCT AAG CTG CTC ATT TAC TGG GCA TCT ACC
 K P G Q P P K L L I Y W A S T

-----/ **FR3** -----
 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68
 CGG GAA TCC GGG GTC CCT GAC CGA TTC AGT GGC AGC GGG TCT GGG
 R E S G V P D R F S G S G S G

 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83
 ACA GAT TTC ACT CTC ACC ATC AGC AGC CTG CAG GCT GAA GAT GTG
 T D F T L T I S S L Q A E D V

-----/ **CDR3** -----/ **FR4** -----
 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98
 GCA GTT TAT TAC TGT CAG CAA TAT TAT AGT ACT CCT CTC ACT TTC
 A V Y Y C Q Q Y Y S T P L T F

-----/ **C_K** -----
 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113
 GGC CCT GGG ACC AAA GTG GAT ATC AAA CGA ACT GTG GCT GCA CCA
 G P G T K V D I K R T V A A P

Figure 38

Mixed Primary Glia
sH-IgM.22 Ca^{2+} response

- ratio cell #1
- ratio cell #2
- △ sH-IgM.22 ($3\mu\text{g/ml}$)
- ▲ Br-A23187 ($10\mu\text{M}$)

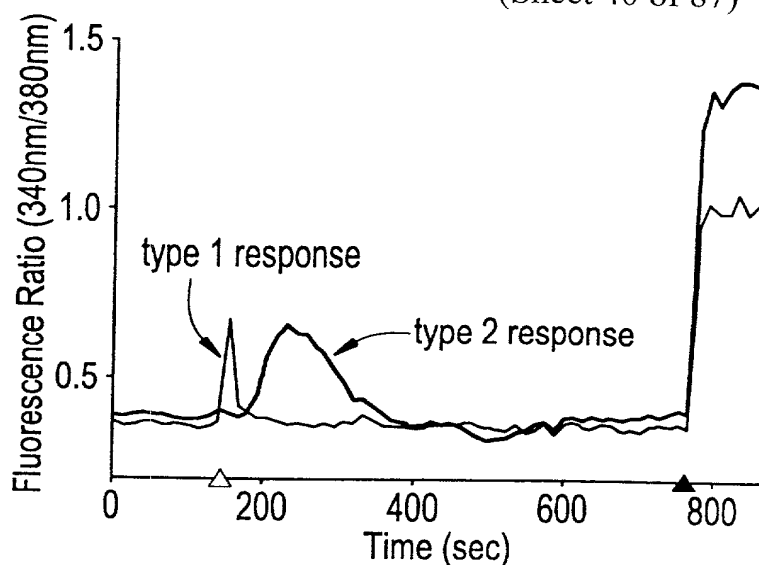


FIG. 39B

Mixed Primary Glia
SCH 94.03 Ca^{2+} response

- ratio cell #1
- ratio cell #2
- △ SCH 94.03 ($3\mu\text{g/ml}$)
- ▲ Br-A23187 ($10\mu\text{M}$)

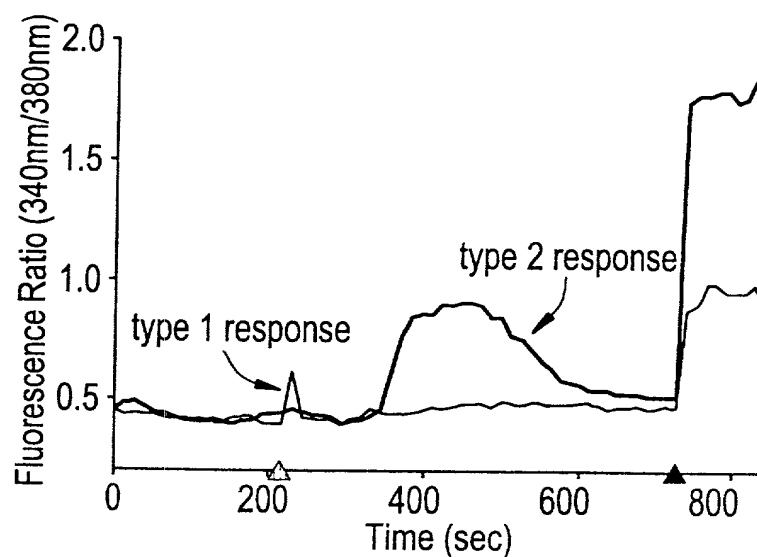


FIG. 39C

Mixed Primary Glia
CH 12/sH-IgM.14 Ca^{2+} response

- ratio cell #1
- ratio cell #2
- △ CH 12 ($3\mu\text{g/ml}$)
- △ sH-IgM.14 ($3\mu\text{g/ml}$)
- ▲ Br-A23187 ($10\mu\text{M}$)

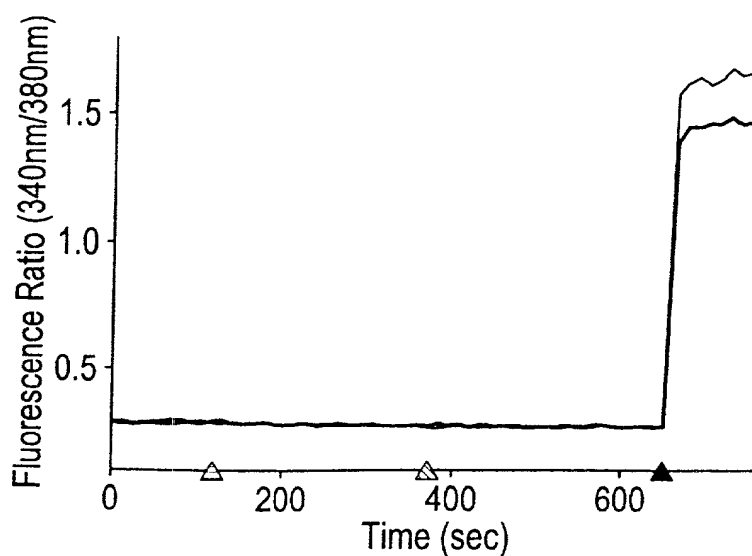


Figure 39

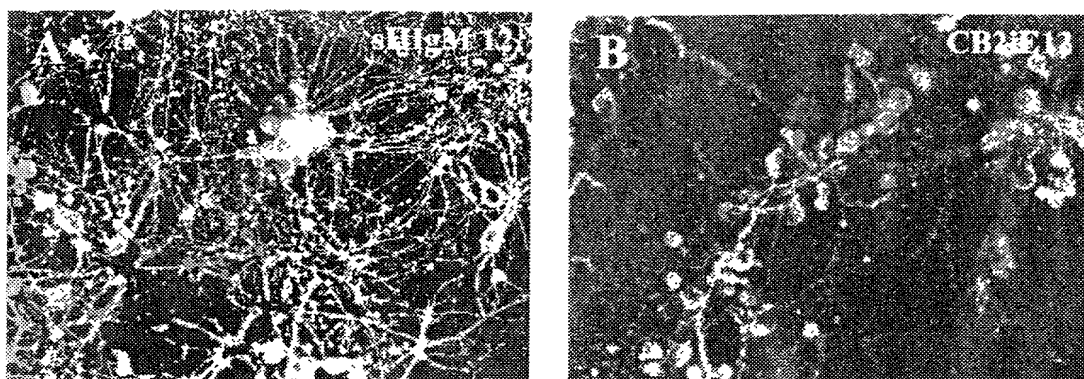


Figure 40

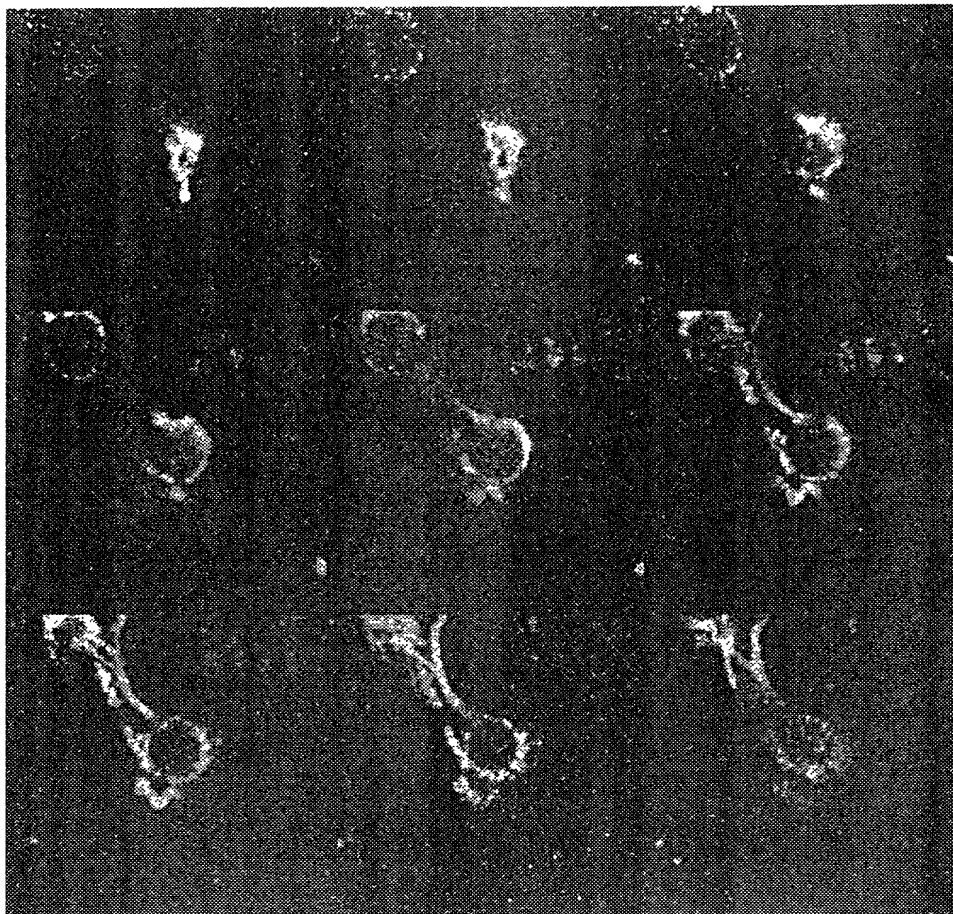


Figure 41

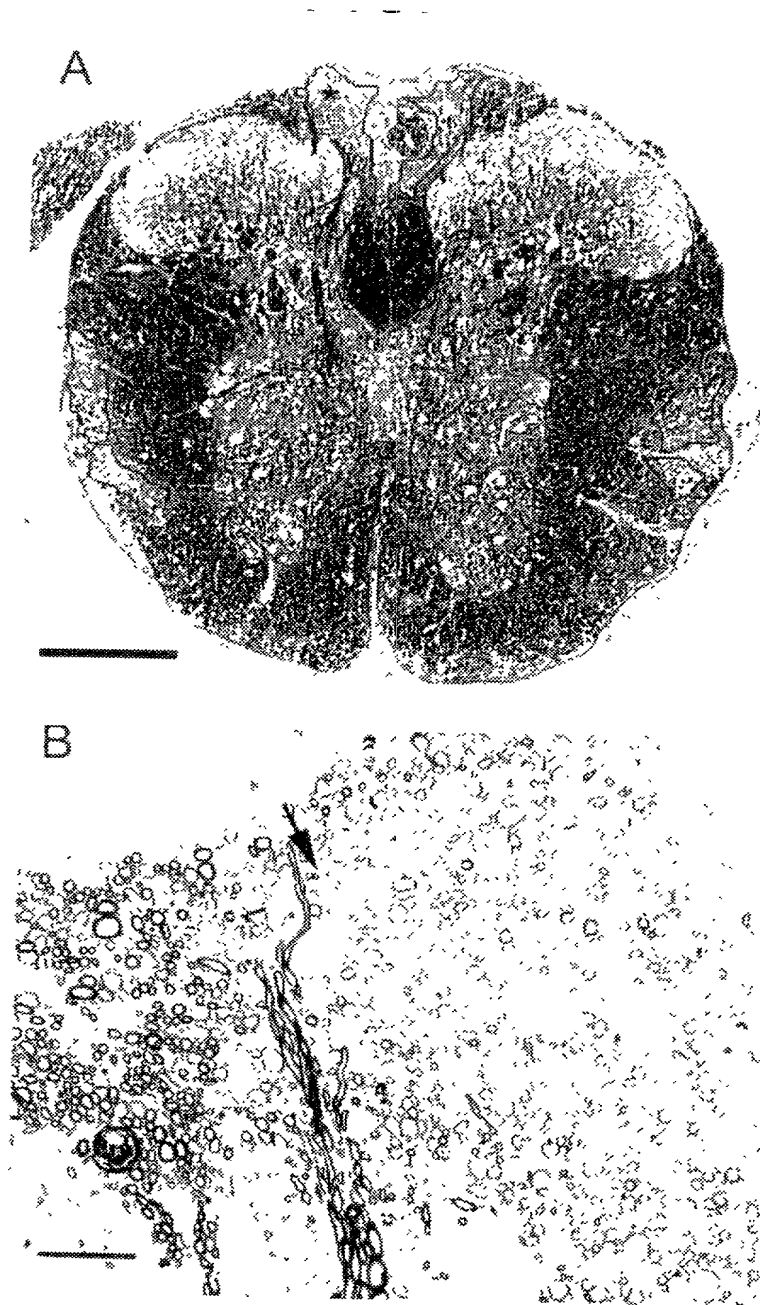


Figure 42

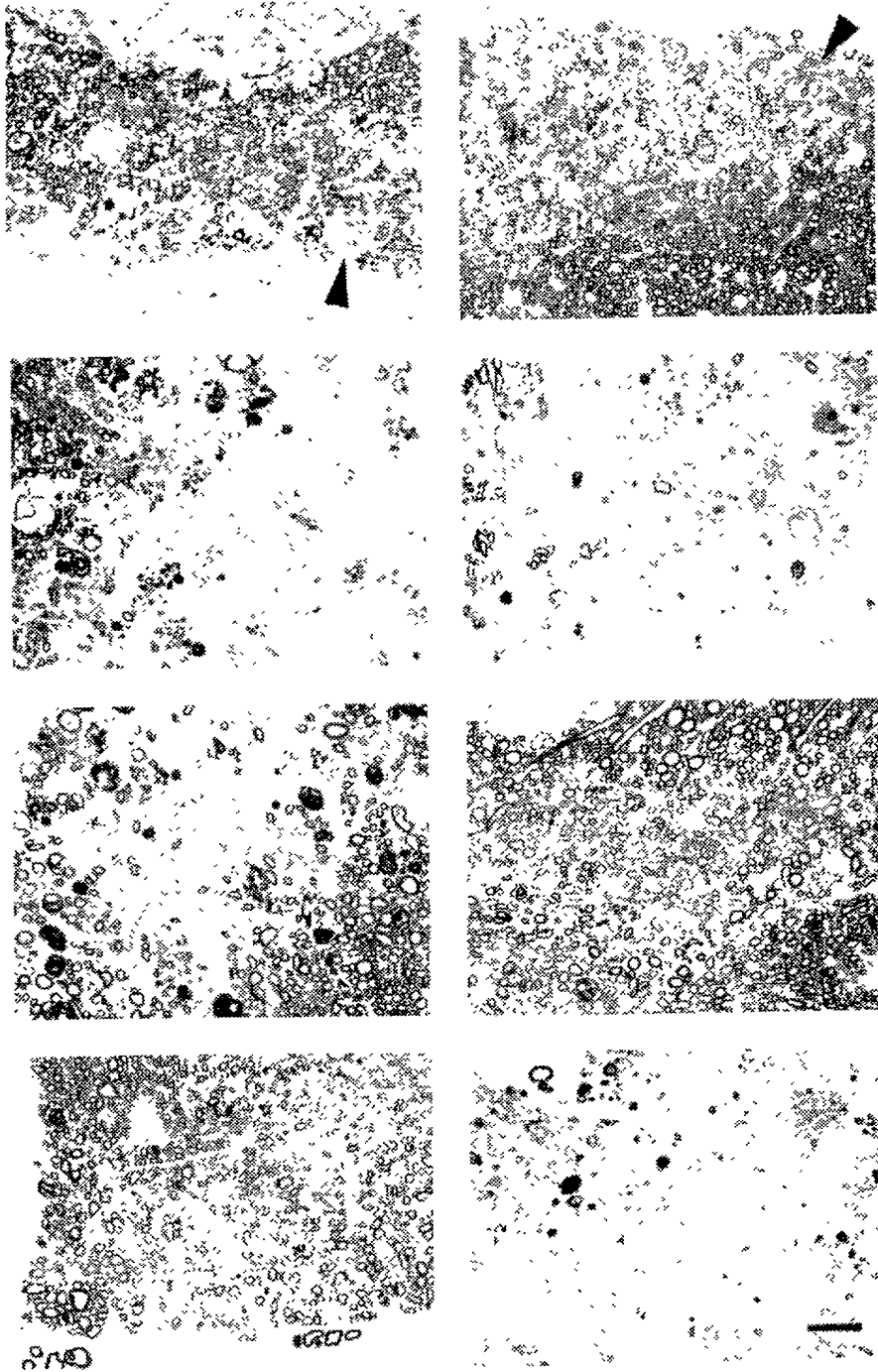


Figure 43

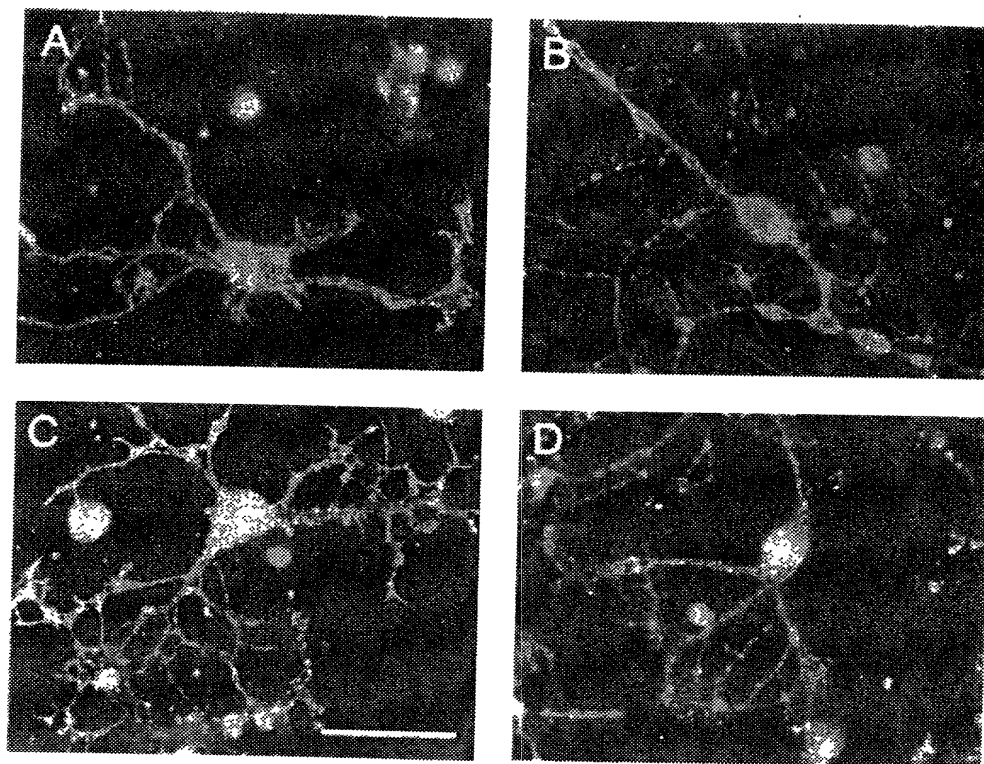


Figure 44

-<----- F R 1 - I M G T -----

1 5 10 15 20

... x A V V Q P G R S L R L S
... AG ... GCC GTG GTC CAG CCT GGG AGG TCC CTG AGA CTC TCC

-----> CDR1 - IMGT <-----

25 30 35 40

C A A S G F I F S S Y G M H W V R Q

TGT GCA GCG TCT GGA TTC ATT TTC AGT AGC TAT GGC ATG CAC TGG GTC CGC CAG

F R 2 - I M G T -----> CDR2 - IMGT ----->

45 50 55 60 65

V P G K G L E W V A V I W Y D G S D K Y

GTT CCA GGC AAG GGG CTG GAG TGG GTG GCA GTT ATA TGG TAT GAT GGA AGT GAT AAA TAC

----- F R 3 - I M G T -----

70 75 80 85

Y V D S V K G R F T I S R D N S K N T L Y

TAT GTA GAC TCC GTG AAG ... GGC CGA TTC ACC ATC TCC AGA GAC AAT TCT AAA AAC ACG CTC TAT

90					95					100					105					110	
L	Q	M	N	S	L	R	A	E	D	T	A	V	Y	Y	C	A	R	D	R	S	S
CTG	CAA	ATG	AAC	AGC	CTG	AGA	GCC	GAG	GAC	ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	GAT	CGC	AGC	AGT

CDR3 - IMGT

G	W	Y	W	S	C	D	¹¹⁵ S	W	G	Q	G	¹²⁰ T	L	V	I	V	¹²⁵ S	S
GGC	TGG	TAC	TGG	TCC	TGC	GAC	TCC	TGG	GGC	CAG	GGA	ACC	CTG	GTC	ATT	GTC	TCC	TCA

Figure 45

```

<----- F R 1 - I M G T -----
1          5          10          15          20
... .. x x L L S G S P G Q S I T I S
... .. .TT XGC CTC ... CTG TCT GGG TCT CCT GGA CAG TCG ATC ACC ATC TCC

----->
25          30          35          40
C T G T S S D V G G Y N Y V S W Y Q Q
CTG ACT GGA ACC AGC AGT GAC GTT GGT GGT TAT AAC TAT ... .. GTC TCC TGG TAC CAA CAG

F R 2 - I M G T ----->
45          50          55          60          65
H P G K A P K L M I Y D V S D
CAC CCA GGC AAA GCC CCC AAA CTC ATG ATT TAT GAT GTC AGT ... .. GAT

----- F R 3 - I M G T -----
70          75          80          85
R P S G V S N R F S G S K S G N T A S
CGG CCC TCA GGG GTT TCT ... AAT CGC TTC TCT GGC TCC AAG ... .. TCT GGC AAC ACG GCC TCC

----->
90          95          100          105          110
L T I S G L Q A E D E A D Y Y C S S Y T S S
CTG ACC ATC TCT GGG CTC CAG GCT GAG GAC GAG GCT GAT TAT TAC TGC AGC TCA TAT ACA AGC AGC

115          120          125
130
S S V V F G G G T K L T V L G Q P K A A P S
AGC TCT GTG GTA TTC GGC GGA GGG ACC AAG CTG ACC GTC CTA GGT CAG CCC AAG GCT GCC CCC TCG

V T L F P P P x
GTC ACT CTG TTC CCG CCT CCA AXG G

```

Figure 46

DHFR amplification of 94.03k

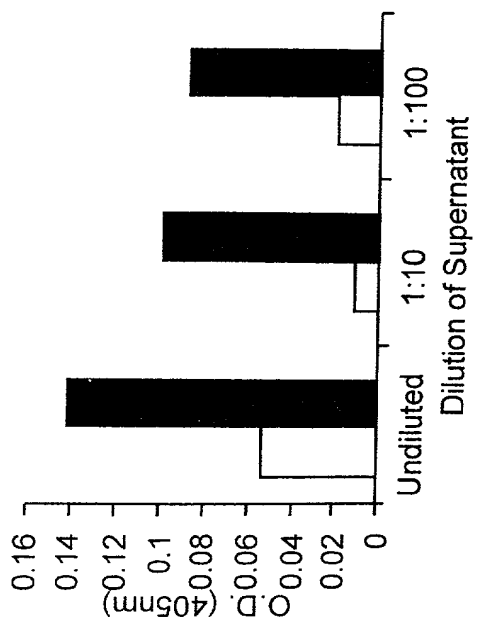
4 5

0.2 51.2 0.2 51.2 Neg Pos



Clone #4 Kappa Chain Elisa

0.2 ug/ml methotrexate
51.2 ug/ml methotrexate



Clone #5 Kappa Chain Elisa

0.2 ug/ml methotrexate
51.2 ug/ml methotrexate

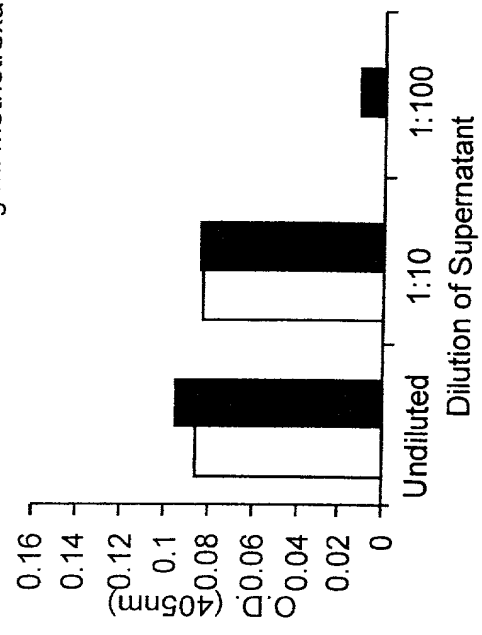


Figure 47

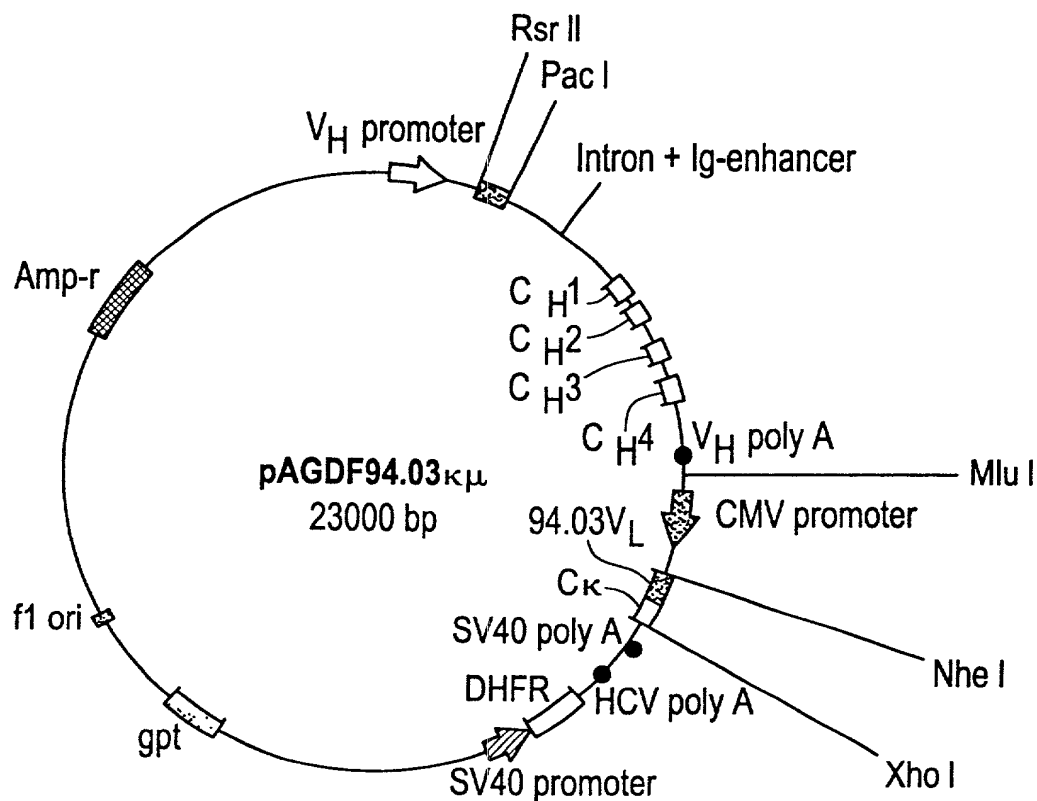
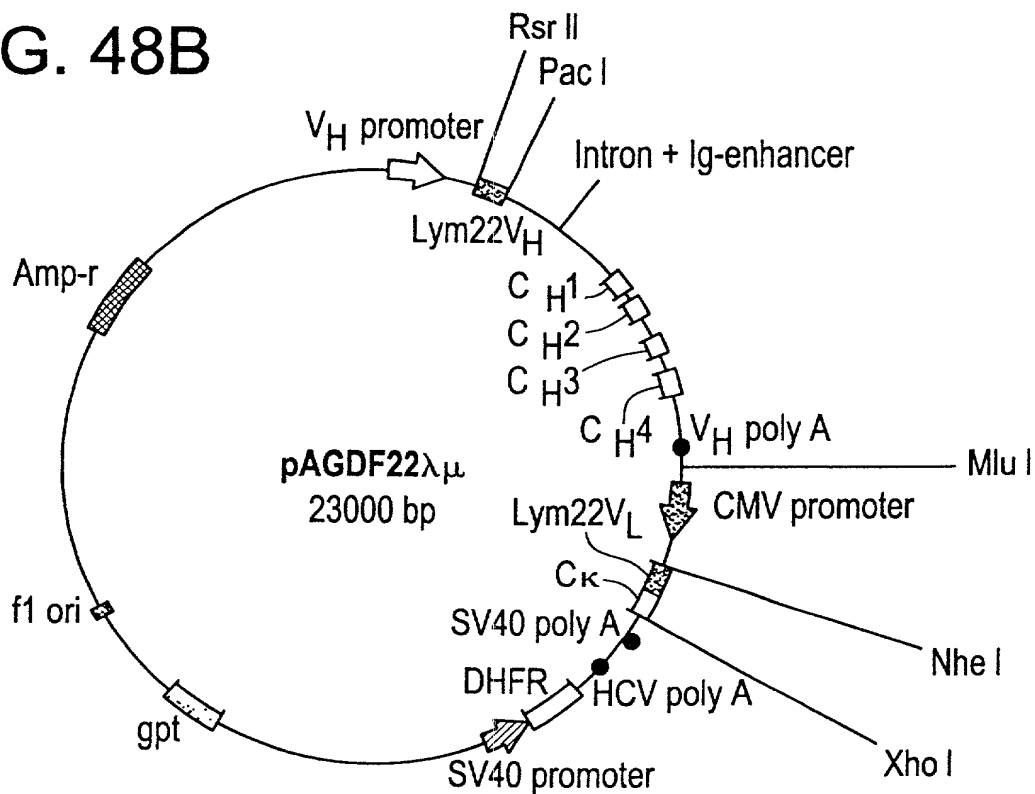
**FIG. 48B**

Figure 48

Postnatal Rat Cerebellum as Substate



Mouse 94.03



Humanized 94.03
clone 1



Humanized 94.03
clone 2

Figure 49

FIG. 50A

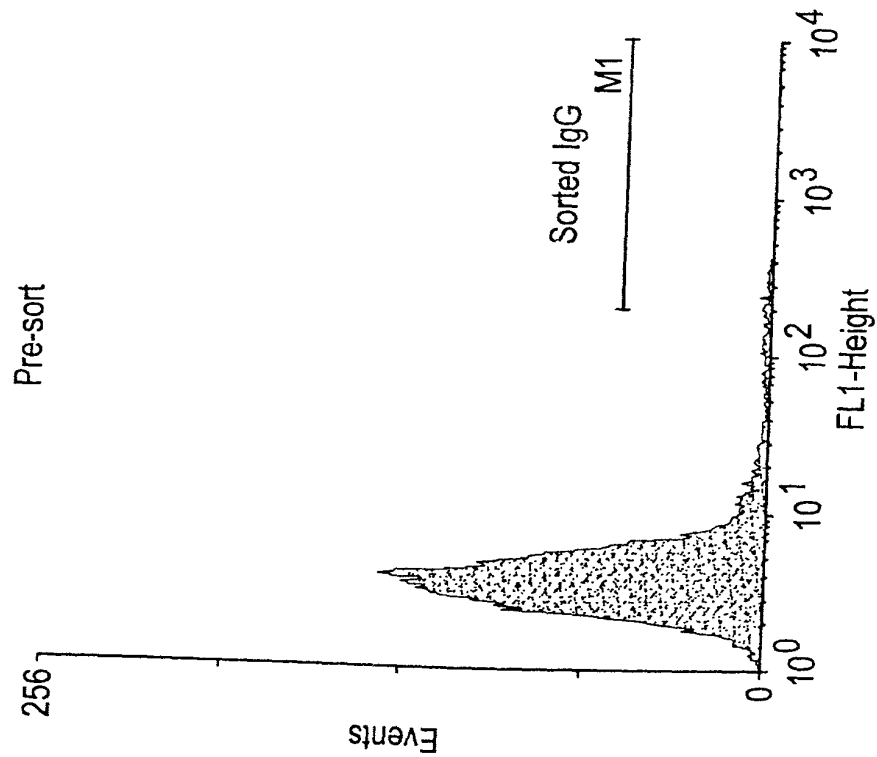


FIG. 50B

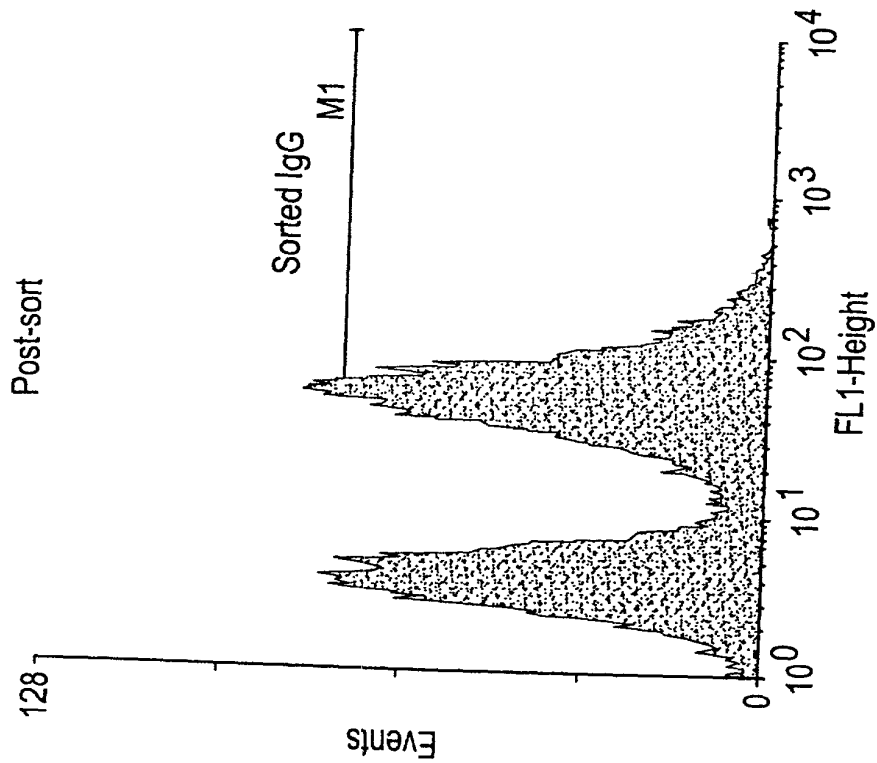
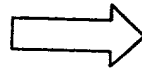
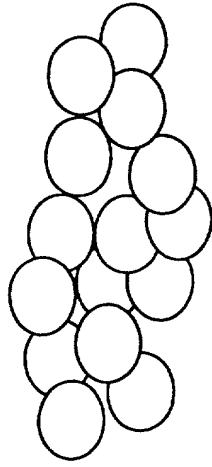


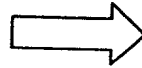
Figure 50

Sequencing of 94.03 IgG

94.03 IgG Cloned Cells



mRNA AAAAAA



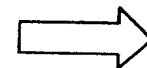
94.03 primer

cDNA

TTTTTT



IgG1 primer



PCR

ATGCAGTTAACATGCATACTGAAGTGCATGCTTTCCAG

Sequence with 94.03 V region plus IgG1

Figure 51

09 V_H Sequence with translation:

```

<----- F R 1 - I M G T ----->
1      5      10      15      20
Q  D H L Q Q S G P E L V K P G A F V K I S
CAG GAT CAC CTG CAG CAG TCT GGA CCT ...GAG CTG GTG AAG CCT GGG GCT TTT GTG AAG ATA TCC

-----> CDR1 - IMGT <-----
25      30      35      40
C K A S G Y T F T N Y D L N W V R Q
TGC AAG GCT TCT GGT TAC ACC TTC ACA AAC TAC GAT ...CTA AAC TGG GTG AGG CAG

F R 2 - I M G T -----> <--
45      50      55      60      65
R P G Q G L E W I G W I Y P G N D N T K
AGG CCT GGA CAG GGC CTT GAG TGG ATT GGA TGG ATT TAT CCT GGA AAT GAT AAT ACT ...AAG

----- F R 3 - I M G T -----
70      75      80      85
Y N E K F K G L A S L T A D K S S T T A Y
TAC AAT GAG AAG TTC AAG ...GGC CTG GCC TCA CTG ACT GCA GAC AAG TCC TCC ACC ACA GCC TAC

----->
90      95      100      105      110
L H L S S L T S E S S A V Y F C A R G L P R
TTG CAT CTC AGC AGC CTG ACT TCT GAG AGC TCT GCA GTC TAT TTC TGT GCA AGA GGG TTA CCT AGG

CDR3 - IMGT
115      120
G W Y F D V W G A G T T V T V S S A
GGC TGG TAC TTC GAT GTC TGG GGC GCA GGG ACC ACG GTC ACC GTC TCC TCA GCT

```

Figure 52

Translation of 09 kappa light chain 1:

```

<----- F R I - I M G T -----
1  N I V M T Q S P K S M S 10 15 20
AAC ATT GTA ATG ACC CAA TCT CCC AAA TCC ATG TCC ATG TCA GTA GGA GAG AGG GTC ACC TTG ACC

----->

25  C K A S E N V T Y 30 35
TGC AAG GCC AGT GAG AAT GTG GTT ACT TAT ... GTT TCC TGG TAT CAA CAG

F R 2 - I M G T ----->

45  K P E Q S P K L L I Y G A S 50 55 60 65
AAA CCA GAG CAG TCT CCT CCA AAA CTG CTG ATA TAC GGG GCA TCC ... AAC

----->

70  R Y T G V P D R F T G S G 75 80 85
CGG TAC ACT GGG GTC CCC ... GAT CGC TTC ACA GGC AGT GGA ... TCT GCA ACA GAT TTC ACT

----->

90  L T I S S V Q A E D L A D Y H C 100 105 110
CTG ACC ATC AGC AGT GTG CAG GCT GAA GAC CTT GCA GAT TAT CAC TGT GGA CAG GGT TAC AGC TAT

----->

P Y T F G G 115
CCG TAC ACG TTC GGA GGG GGG

```

Figure 53

Translation of 09 kappa light chain 2:

```

<----- F R I - I M G T -----
1  D V Q I T Q S P S Y L A A 15 F P G E T I T I N
   GAT GTC CAG ATA ACC CAG TCT CCA TCT TAT CTT GCT GCA TTT CCT GGA GAA ACC ATT ACT ATT AAT
----->
25  C R A S K S I S K Y 35  L A W Y Q E
   TGT AGG GCA AGT AAG AGC ATT AGT AAA TAT ... TTA GCC TGG TAT CAA GAG
----->
F R 2 - I M G T -----<-----
45  R P G K T N K L L I Y S G S 60  CDR2 - IMGT
   AGA CCT GGA AAA ACT AAT AAG CTT CTT ATC TAC TCT GGA TCC ... ACT
----->
70  L Q S G I P S R F S G S G 80  S G T D F T
   TTG CAA TCT GGA ATT CCA ... TCA AGG TTC AGT GGC AGT GGA ... TCT GGT ACA GAT TTC ACT
----->
90  L T I S S L E P E D F A M Y Y C Q Q H N E Y
   CTC ACC ATC AGT AGC CTG GAG CCT GAA GAT TTT GCA ATG TAT TAC TGT CAA CAG CAT AAT GAA TAC
----->
115 P Y T F G G
    CCG TAT ACG TTC GGA GGG GGG

```

Figure 54

Translation of AKJR 4 Heavy Chain:

```

<----- F R 1 - I M G T -----
1  E V Q L L E S G G 10  G L V Q P 15  G G S L R L S
   GAG GTG CAA CTA TTG GAA TCT GGG GGA ... GGC TTG GTA CAG CCT GGG GGG TCC CTG AGA CTC TCC
----->
                                     CDR1 - IMGT
25  C A A S G F S F I D Y A 35
   TGT GCA GCC TCT GGA TTC AGC TTT ATC GAC TAT GCC ... ATG AGC TGG GTC CGC CAG
F R 2 - I M G T ----->
45  A P G K G L E W V S S L S G D S G S 65
   GCT CCA GGG AAG GGA CTG GAG TGG GTC TCA AGT CTT AGT GGT GAT AGT TCA ... TAT
                                     CDR2 - IMGT
70  Y A D S V K 75  G R F T I S R D N S K S T V F
   TAT GCA GAC TCC GTG AAG ... GGC CGA TTC ACC ATC TCC AGA GAC AAT TCC AAG AGC ACG GTG TTT
----->
                                     CDR3 - IMGT
90  L Q L S S L R A E D T A I Y Y C A Q E T G P 110
   CTG CAA CTG AGC AGC CTG AGA GCC GAG GAC ACG GCC ATA TAT TAC TGT GCG CAG GAG ACC GGT CCC
115  Q R R W G Q G T L V T V S S G S A S A P T L 130
   CAG CGT CGC TGG GGC CAG GGA ACC CTG GTC ACC GTC TCC TCA GGG AGT GCA TCC GCC CCA ACC CTT

```

Figure 55

[illegible]

Figure 56

<----- F R 1 - I M G T ----->
 1 5 10 15 20
CC AGG ... XAG XAX AXG AAA XCG GAG GCC TCA GTG AAG GTC TCC
 ----->
 CDR1 - IMGT
 25 30 35 40
 C K A S G Y T F T G Y Y M H W V R Q
 TGC AAG GCT TCT GGA TAC ACC TTC ACC GGC TAC TAT ... ATG CAC TGG GTG CGA CAG
 F R 2 - I M G T ----->
 CDR2 - IMGT
 45 50 55 60 65
 A P G Q G L E W M G W I N P N S G G T
 GCC CCT GGA CAA GGG CTT GAG TGG ATG GGA TGG ATC AAC CCT AAC AGT GGT GGC ACA ... AAC
 ----->
 70 75 80 85
 Y A Q K F Q G R V T M T R D T S I S T A Y
 TAT GCA CAG AAG TTT CAG ... GGC AGG GTC ACC ATG ACC AGG GAC ACG TCC ATC AGC ACA GCC TAC
 ----->
 90 95 100 105 110
 M E L S R L R S D D T A V Y Y C A R D R S Y
 ATG GAG CTG AGC AGG CTG AGA TCT GAC GAC ACG GCC GTG TAT TAC TGT GCG AGA GAT CGA TCG TAT
 CDR3 - IMGT
 115 120 125
 P G R N Y F D Y W G Q G T L V T
 CCG GGA AGG AAC TAC TTT GAC TAC TGG GGC CAG GGA ACC CTG GTC ACC

Figure 57

Translation of CB2i-E12 kappa chain:

<----- F R I - I M G T ----->

1 E I V L T Q S P G T L S L S P G E R A T L S 20
GAA ATT GTG TTG ACG CAG TCT CCA GGC ACC CTG TCT TTG TCT CCA GGG GAA AGA GCC ACC CTC TCC

----->

25 C R A S Q S V S S Y 30 35 40
TGC AGG GCC AGT CAG AGT GTT AGC AGC AGC TAC ... L A W Y Q Q
F R 2 - I M G T ----->

45 K P G Q A P R L L I Y G A S 50 55 60 65
AAA CCT GGC CAG GCT CCC AGG CTC CTC ATC TAT GGT GCA TCC ... S
----->

70 R A T G I P D R F S G S G 75 80 85
AGG GCC ACT GGC ATC CCA ... GAC AGG TTC AGT GGC AGT GGG ... TCT GGG ACA GAC TTC ACT

----->

90 L T I S R L E P E D F A V Y Y C Q Q Y G S S 95 100 105 110
CTC ACC ATC AGC AGA CTG GAG CCT GAA GAT TTT GCA GTG TAT TAC TGT CAG CAG TAT GGT AGC TCT

----->

115 H T F G Q G
CAC ACT TTT GGC CAG GGG

Figure 58

[illegible]

Figure 59

Translation of CB2i-E7 kappa Chain:

```

<----- F R 1 - I M G T ----->
1      5      10      15      20
D I Q M T Q S P S L S A S V G D R V T I T
GAC ATC CAG ATG ACC CAG TCT CCA TCC TCC CTG TCT GCA TCT GTA GGA GAC AGA GTC ACC ATC ACT

----->
25      30      35      40
C R A S Q G I S N Y L A W Y Q Q
TGC CGG GCG AGT CAG GGC ATT AGC AAT TAT ... TTA GCC TGG TAT CAG CAG

F R 2 - I M G T ----->
45      50      55      60      65
K P G K V P K L L I Y A A S T
AAA CCA GGG AAA GTT CCT AAG CTC CTG ATC TAT GCT GCA TCC ... ACT

----- F R 3 - I M G T ----->
70      75      80      85
L Q S G V P S R F N G S G S G T D F T
TTG CAA TCA GGG GTC CCA ... TCT CGG TTC AAT GGC AGT GGA ... TCT GGG ACA GAT TTC ACT

----->
90      95      100      105      110
L T I S S L Q P E D V A T Y Y C Q K Y N K C
CTC ACC ATC AGC AGC CTG CAA CCT GAA GAT GTT GCA ACT TAT TAC TGT CAA AAG TAT AAC AAG TGC

----->
115
P S H F R G R D
CCC TCT CAC TTT CGG GGG AGG GAC

```

Figure 60

Translation Of MSI 19-E5 Light Chain

```

<----- F R 1 - I M G T ----->
1      5      10      15      20
D I A M T Q S P D S L A V S L G E R A T I N
GAC ATC GCG ATG ACC CAG TCT CCA GAC TCC CTG GCA GTG TCT CTG GGC GAG AGG GCC ACC ATC AAC

----->
25      30      35      40
C K S S R S V L F S S N N N Y L A W Y Q Q
TGC AAG TCC AGC CGG AGT GTT TTA TTC AGC TCC AAC AAT AAC TAC TTA GCT TGG TAC CAG CAG

F R 2 - I M G T ----->
45      50      55      60      65
K P G Q P P K L L I Y W A S
AAA CCA GGA CAG CCT CCT AAG CTA CTC ATT TAC TGG GCA TCT ... ACC

----- F R 3 - I M G T -----
70      75      80      85
R E S G V P D R F S G S G S G T D F T
CGG GAA TCC GGG GTC CCT ... GAC CGA TTC AGT GGC AGC GGG ... TCT GGG ACA GAT TTC ACT

----->
90      95      100      105      110
L T I S S L Q A E D V A V Y Y C Q Q Y Y S T
CTC ACC ATC AGC AGC CTG CAG GCT GAA GAT GTG GCA GTT TAT TAC TGT CAG CAA TAT TAT AGT ACT

MGT
P I T F G
CCA ATC ACC TTC GGC

```

Figure 61

Translation of 04 kappa chain 2:

```

<----- F R I - I M G T ----->
1   D I V M T Q S H K F M S T S V G D R V S I T
    GAC ATC GTA ATG ACG CAG TCT CAC AAA TTC ATG TCC ACT TCA GTA GGA AGG GTC AGC ATC ACC

----->
    C K A S Q D V S T A
    TGC AAG GCC AGT CAG GAT GTG AGT ACT GCT ... .. .
    F R 2 - I M G T ----->

    25 CDR1 - IMGT 30 35 40
    C K A S Q D V S T A V A W Y Q Q
    TGC AAG GCC AGT CAG GAT GTG AGT ACT GCT ... .. . GTA GCC TGG TAT CAA CAG

    45 50 55 60
    K P G Q S P K L L I Y S A S
    AAA CCA GGA TCT CCT CCA CTA CTG ATT TAC TCG GCA TCC ... .. . TAC

    70 75 80 85
    R Y T G V P D R F T G S G S G T D F T
    CGG TAC ACT GGA GTC CCT ... GAT CGC TTC ACT GGC AGT GGA ... .. TCT GGG ACG GAT TTC ACT

----->
    90 95 100 105 110
    F T I S S V Q A E D L A V Y Y C Q Q H Y T T
    TTC ACC ATC AGC AGT GTG CAG GCT GAA GAC CTG GCA GTT TAT TAC TGT CAG CAA CAT TAT ACT ACT

    115
    P L T F G A G
    CCG CTC ACG TTC GGT GCT GGG

```

Figure 62

FIG. 63A

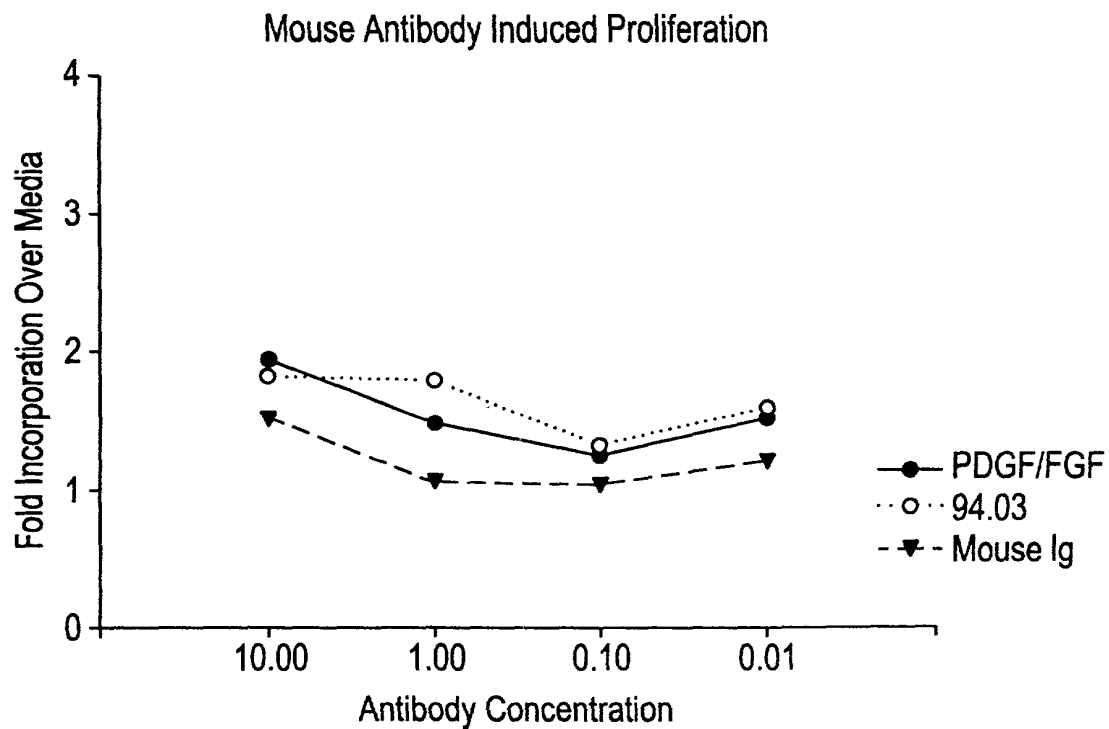


FIG. 63B

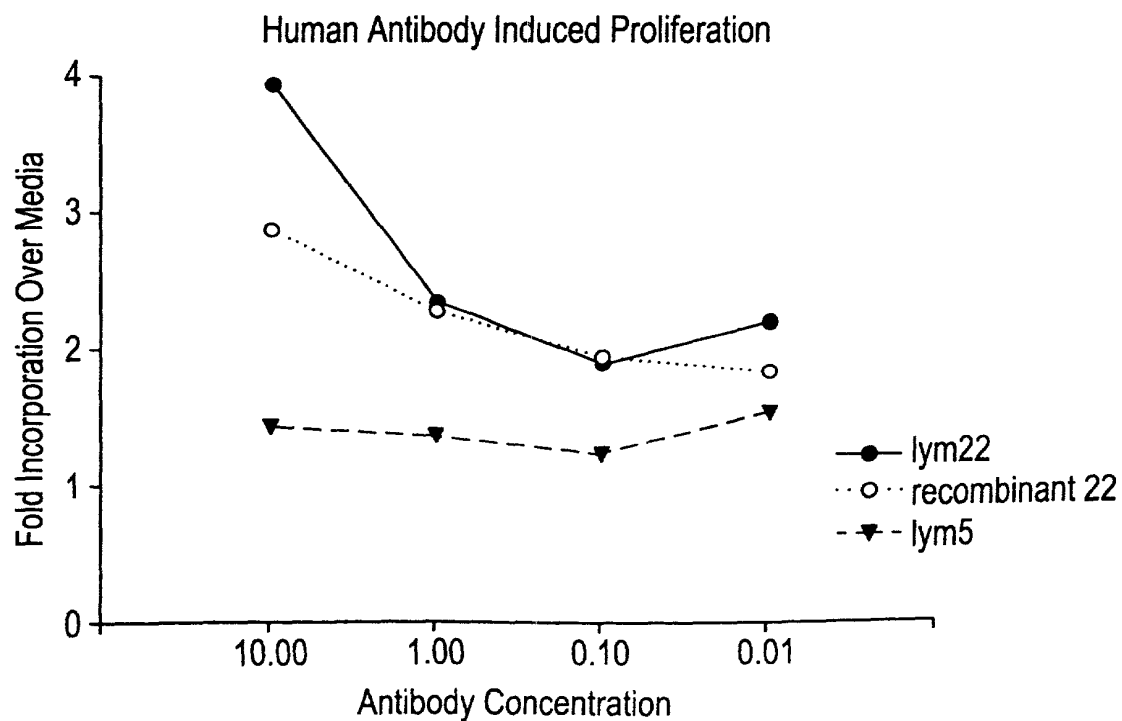


Figure 63

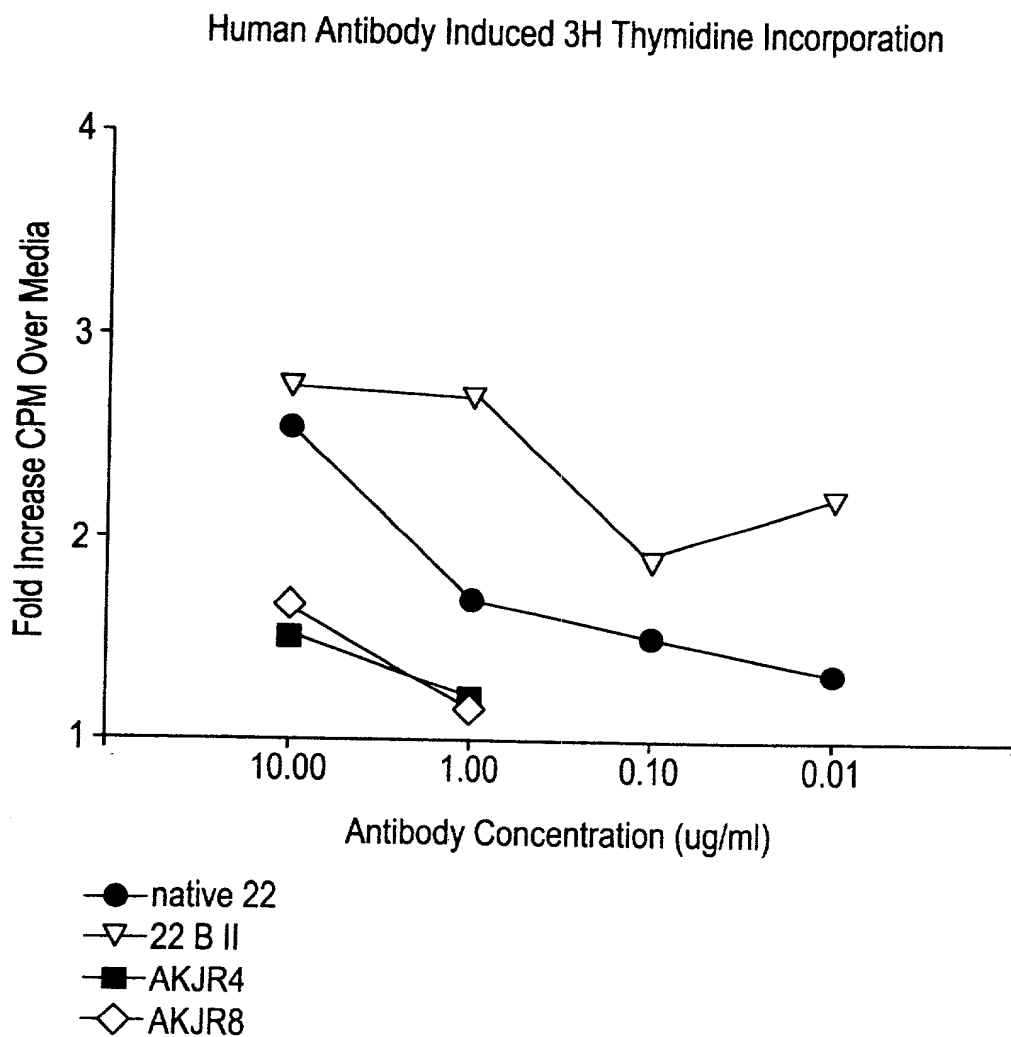


Figure 64

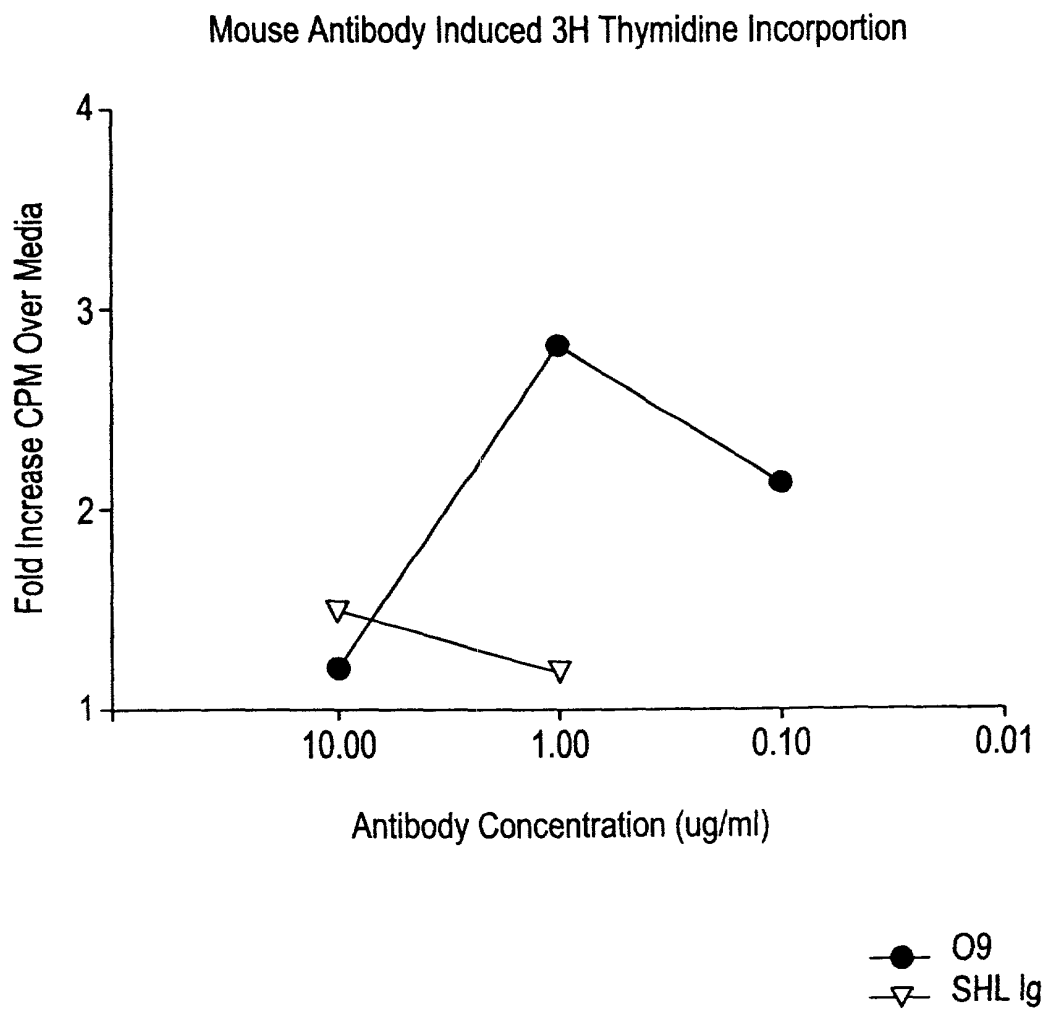
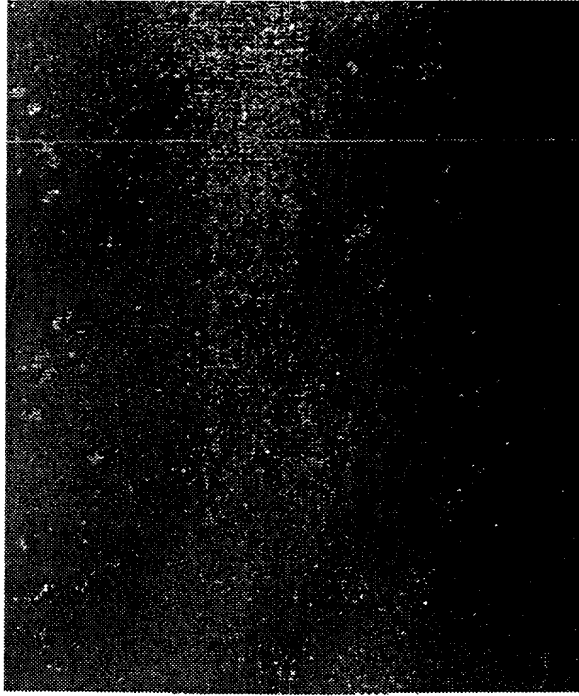


Figure 65

Recombinant sHlgM 22 Binds
Specifically to White Matter

sHlgM 22



rHlgM 22

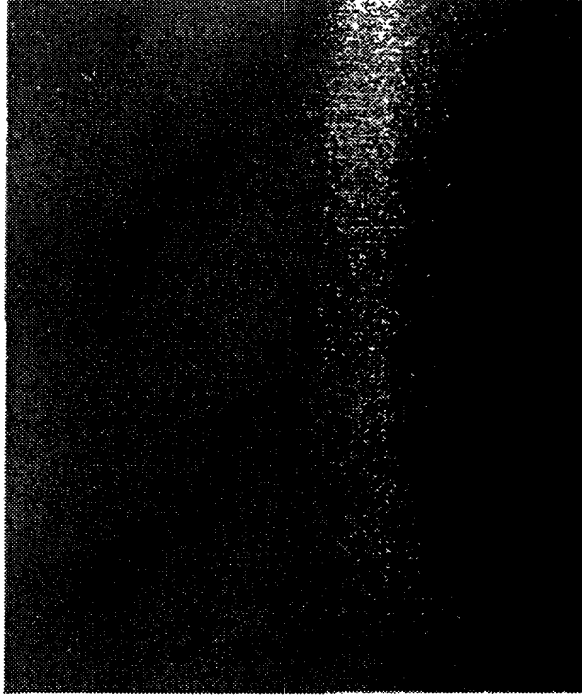


Figure 66

TRANSLATION OF O4 KAPPA CHAIN

```

<----- F R I - I M G T ----->
1  D I V M T Q S H K F M S T S V G D R V S I T
   GAC ATC GTA ATG ACG CAG TCT CAC AAA TTC ATG TCC ACT TCA GTA GGA GAC AGG GTC AGC ATC ACC

----->
      25      30      35      40
C   K A S Q D V S T A          V A W Y Q Q
TGC AAG GCC AGT CAG GAT GTG AGT ACT GCT ... .. GTA GCC TGG TAT CAA CAG

F R 2 - I M G T ----->
      45      50      55      60      65
K   P G Q S P K L L I Y S A S          Y
AAA CCA GGA CAA TCT CCT CCA AAA CTA CTG ATT TAC TCG GCA TCC ... .. TAC

----- F R 3 - I M G T ----->
      70      75      80      85
R   Y T G V P D R F T G S G          S G T D F T
CGG TAC ACT GGA GTC CCT ... GAT CGC TTC ACT GGC AGT GGA ... TCT GGG ACG GAT TTC ACT

----->
      90      95      100      105      110
F   T I S S V Q A E D L A V Y Y C Q Q H Y T T
TTC ACC ATC AGC AGT GTG CAG GCT GAA GAC CTG GCA GTT TAT TAC TGT CAG CAA CAT TAT ACT ACT

      115      120
P   L T F G A G T R L E L K R
CCG CTC ACG TTC GGT GCT GGG ACC AGG CTG GAG CTG AAA CGG

      CDR1 - IMGT      CDR2 - IMGT      CDR3 - IMGT

```

Figure 67

TRANSLATION OF 01 KAPPA CHAIN

```

<----- F R 1 - I M G T -----
1  D V Q I T Q S P S Y L A A S P G E T I T I N 20
   GAT GTC CAG ATA ACC CAG TCT CCA TCT TAT CTT GCT GCA TCT CCT GGA GAA ACC ATT ACT ATT AAT

----->
      25      30      35      40
C R A S K S I S K Y L A W Y Q E
TGC AGG GCA AGT AAG AGC ATT AGC AAA TAT ... TTA GCC TGG TAT CAA GAG

F R 2 - I M G T ----->
45  K P G K T N K L L I Y S G S 60
   AAA CCT GGG AAA ACT AAT AAG CTT ATC TAC TCT GGA TCC ... ACT

      55      60      65
      CDR2 - IMGT
      <----

70  L Q S G I P S R F S G S G 80
   TTG CAA TCT GGA ATT CCA ... TCA AGG TTC AGT GGC AGT GGA ... TCT GGT ACA GAT TTC ACT

----->
      90      95      100      105      110
L T I S S L E P E D F A M Y Y C Q Q H N E Y
CTC ACC ATC AGT AGC CTG GAG CCT GAA GAT TTT GCA ATG TAT TAC TGT CAA CAG CAT AAT GAA TAC

      115      120
P Y T F G G G T K L E I K R
CCG TAC ACG TTC GGA GGG GGG ACC AAG CTG GAA ATA AAA CGG

      CDR3 - IMGT

```

Figure 68

1199-1-005CIP2

TRANSLATION OF HNK-1 KAPPA CHAIN

```

<----- F R 1 - I M G T ----->
1  D I Q M T Q S P S L S A S L G E R V S L T
   GAC ATC CAG ATG ACC CAG TCT CCA TCC TCC TTA TCT GCC TCT CTG GGA GAA AGA GTC AGT CTC ACT

----->
      25          30          35          40
      C R A S Q D I G S S          L N W L Q Q
      TGT CGG GCA AGT CAG GAC ATT GGT AGT AGC ... TTA AAC TGG CTT CAG CAG

F R 2 - I M G T ----->
      45          50          55          60          65
      E P D G T I K R L I Y A T S          S
      GAA CCA GAT GGA ACT ATT AAA CGC CTG ATC TAC GCC ACA TCC ... AGT

----- F R 3 - I M G T ----->
      70          75          80          85
      L D S G V P K R F S G S R          S G S D Y S
      TTA GAT TCT GGT GTG CCC ... AAA AGG TTC AGT GGC AGT AGG ... TCT GGG TCA GAT TAT TCT

----->
      90          95          100          105          110
      L T I S S L E S E D F V D Y Y C L Q Y A S
      CTC ACC ATC AGC AGC CTT GAG TCT GAA GAT TTT GTA GAC TAT TAC TGT CTA CAA TAT GCT AGT TTT

      115          120
      P Y T F G G G T K L E I K R
      CCG TAC ACG TTC GGA GGG GGG ACC AAG CTG GAA ATA AAA CGG
  
```

Figure 69

TRANSLATION OF A2B5 KAPPA CHAIN

Figure 70

LYM 46 Heavy Chain Sequence:

FR 1														
E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G
GAG	GTG	CAG	CTG	GTG	GAG	TCT	GGG	GGA	GGC	TTG	GTC	CAG	CCT	GGG
CDR1														
G	S	L	R	L	S	C	A	A	S	G	F	T	F	S
GGG	TCC	CTG	AGA	CTC	TCC	TGT	GCA	GCC	TCT	GGA	TTC	ACC	TTT	AGT
FR 2														
S	Y	W	M	T	W	V	R	Q	A	P	G	K	G	L
AGC	TAT	TGG	ATG	ACC	TGG	GTC	CGC	CAG	GCT	CCA	GGG	AAG	GGG	CTG
CDR2														
E	W	V	A	N	I	K	K	D	G	S	E	K	S	Y
GAG	TGG	GTG	GCC	AAC	ATA	AAG	AAA	GAT	GGA	AGT	GAG	AAA	TCC	TAT
FR3														
V	D	S	V	K	G	R	F	T	T	S	R	D	N	A
GTG	GAC	TCT	GTG	AAG	GGC	CGA	TTC	ACC	ACC	TCC	AGA	GAC	AAC	GCC
K	N	S	L	Y	L	Q	M	N	S	L	R	A	E	D
AAG	AAC	TCA	CTG	TAT	CTG	CAA	ATG	AAC	AGC	CTG	AGA	GCC	GAG	GAC
CDR3														
T	A	V	Y	Y	C	A	R	P	N	C	G	G	D	C
ACG	GCT	GTG	TAT	TAC	TGT	GCG	AGA	CCC	AAT	TGT	GGT	GGT	GAC	TGC
Y	L	P	W	Y	F	D	L	W	G	R	G	T	L	V
TAT	TTA	CCA	TGG	TAC	TTC	GAT	CTC	TGG	GGC	CGT	GGC	ACC	CTG	GTC
T	V	S	S											
ACT	GTC	TCC	TCA											

Figure 71

LYM 46 KAPPA LIGHT CHAIN SEQUENCE:

```

<----- F R 1 - I M G T ----->
1  D I V M T Q S P D S L A V S L G E R A T I N
   GAC ATC GTG ATG ACC CAG TCT CCA GAC TCC CTG GCT GTG TCT CTG GGC GAG AGG GCC ACC ATC AAC

----->
      25          30          35          40
C  K S S Q S V L Y S S N K N Y L A W Y Q Q
TGC AAG TCC AGC CAG AGT GTT TTA TAC AGC TCC AAC AAT AAG AAC TAC TTA GCT TGG TAC CAG CAG

F R 2 - I M G T ----->
      45          50          55          60          65
K  P G Q P P K L L I Y W A S
AAA CCA GGA CAG CCT CCT AAA CTA CTC ATT TAC TGG GCA TCT ... .. ACC

----- F R 3 - I M G T -----
      70          75          80          85
R  E S G V P D R F S G S G
CGG GAA TCC GGG GTC CCT ... GAC CGA TTC AGT GGC AGC GGG ... TCT GGG ACA GAT TTC ACT

----->
      90          95          100          105          110
L  T I S S L Q A E D V A V Y Y C Q Q Y Y N T
CTC ACC ATC AGC AGC CTG CAG GCT GAA GAT GTG GCA GTT TAT TAC TGT CAG CAA TAT TAT AAT ACT

----->
      115          120          125          130
P  Q A F G Q G T K V E I K R T V A A P S V F
CCT CAG GCG TTC GGC CAA GGG ACC AAG GTG GAA, ATC AAA CGA ACT GTG GCT GCA CCA TCT GTC TTC

```

Figure 72

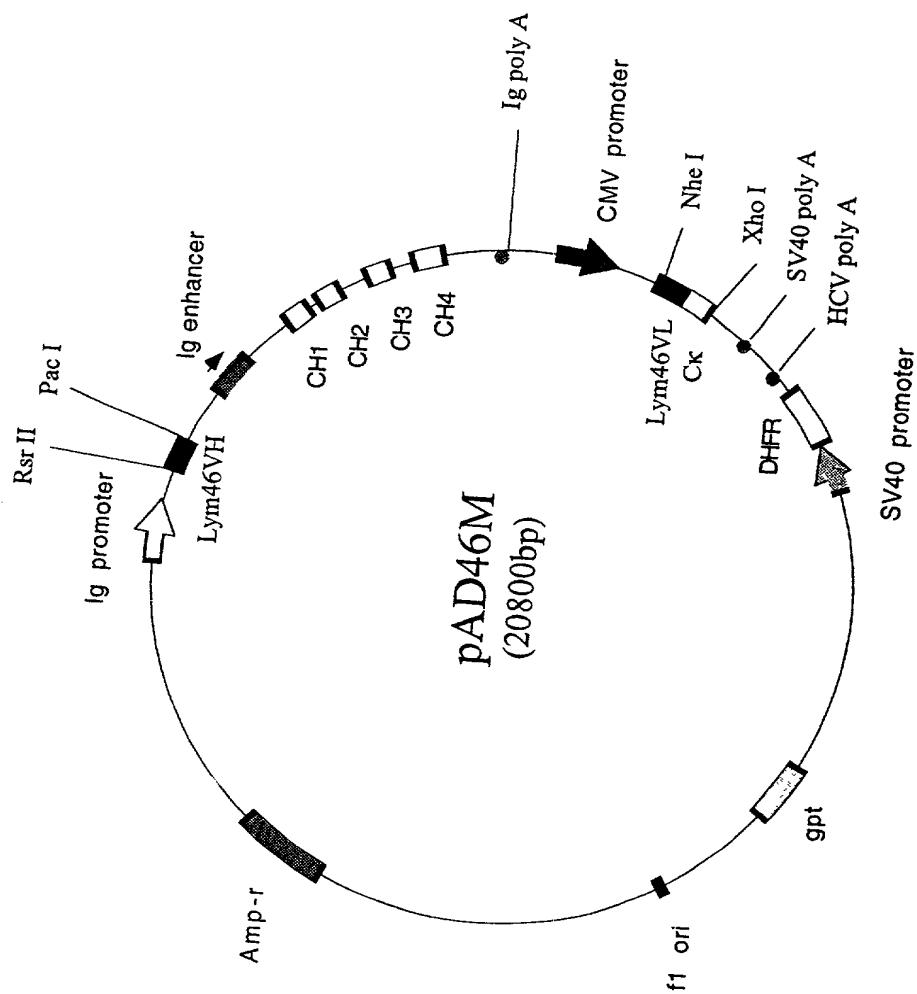


Figure 73

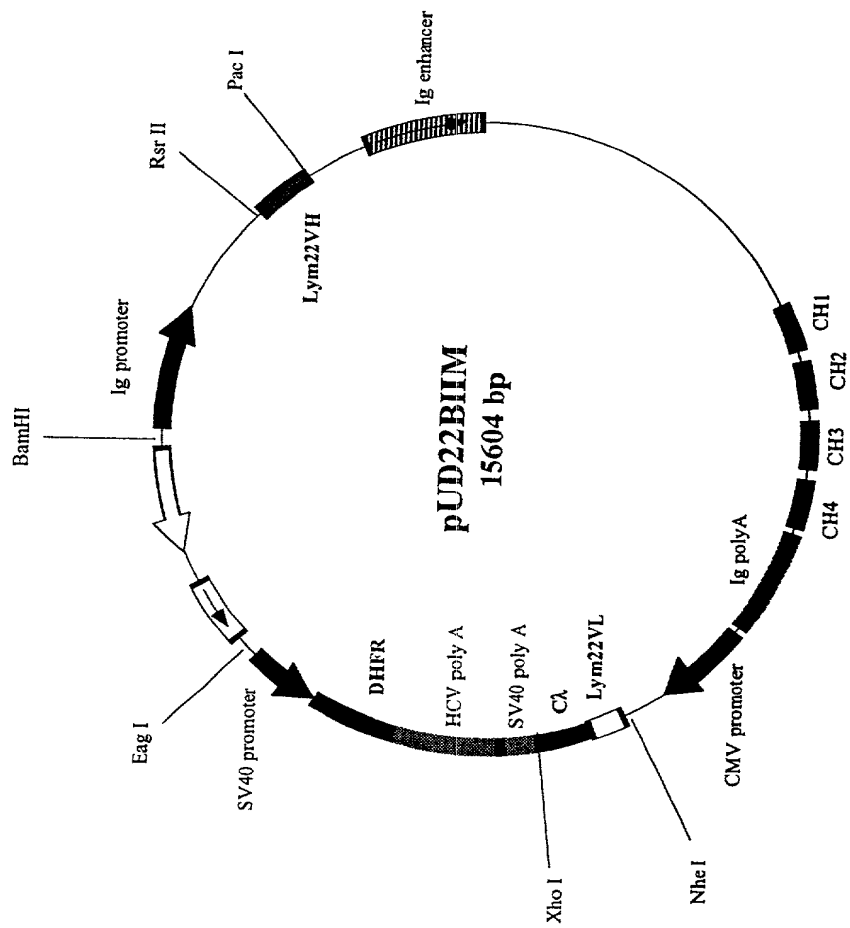


Figure 74

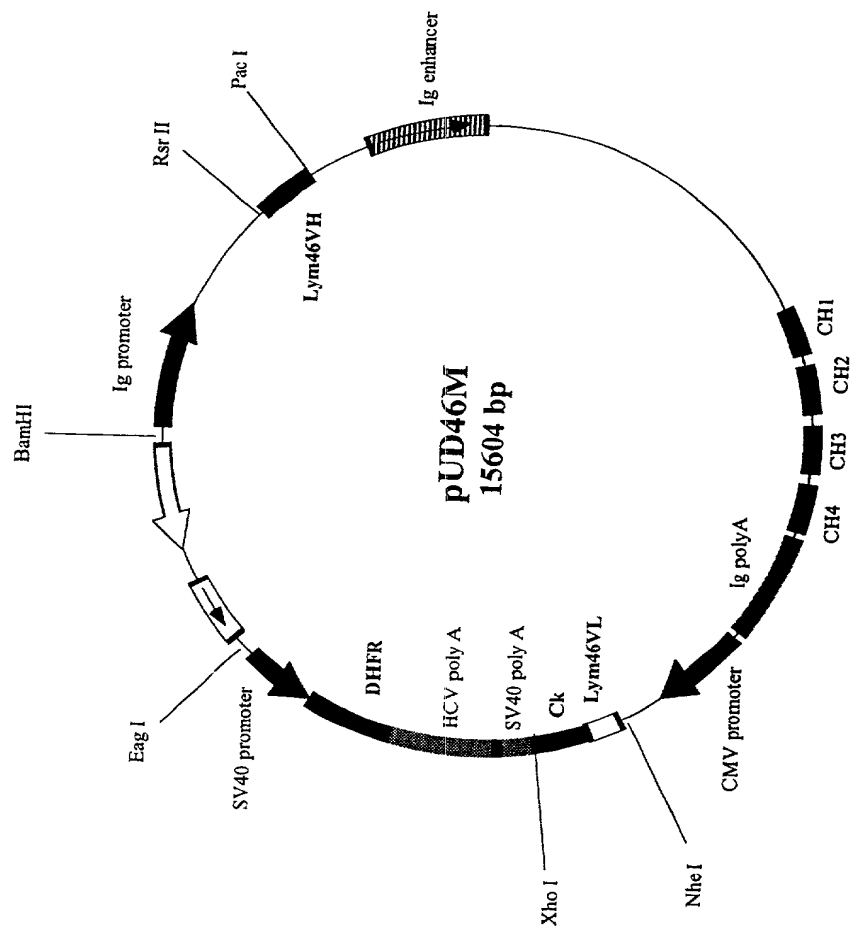


Figure 75

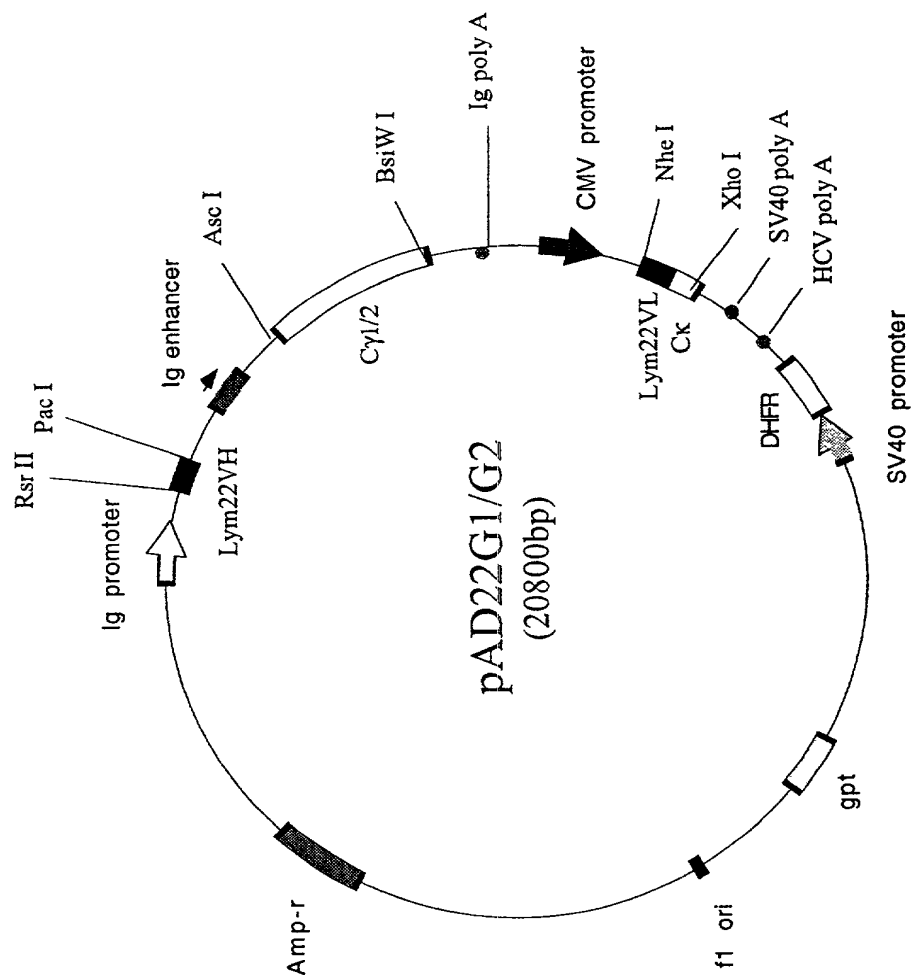


Figure 76

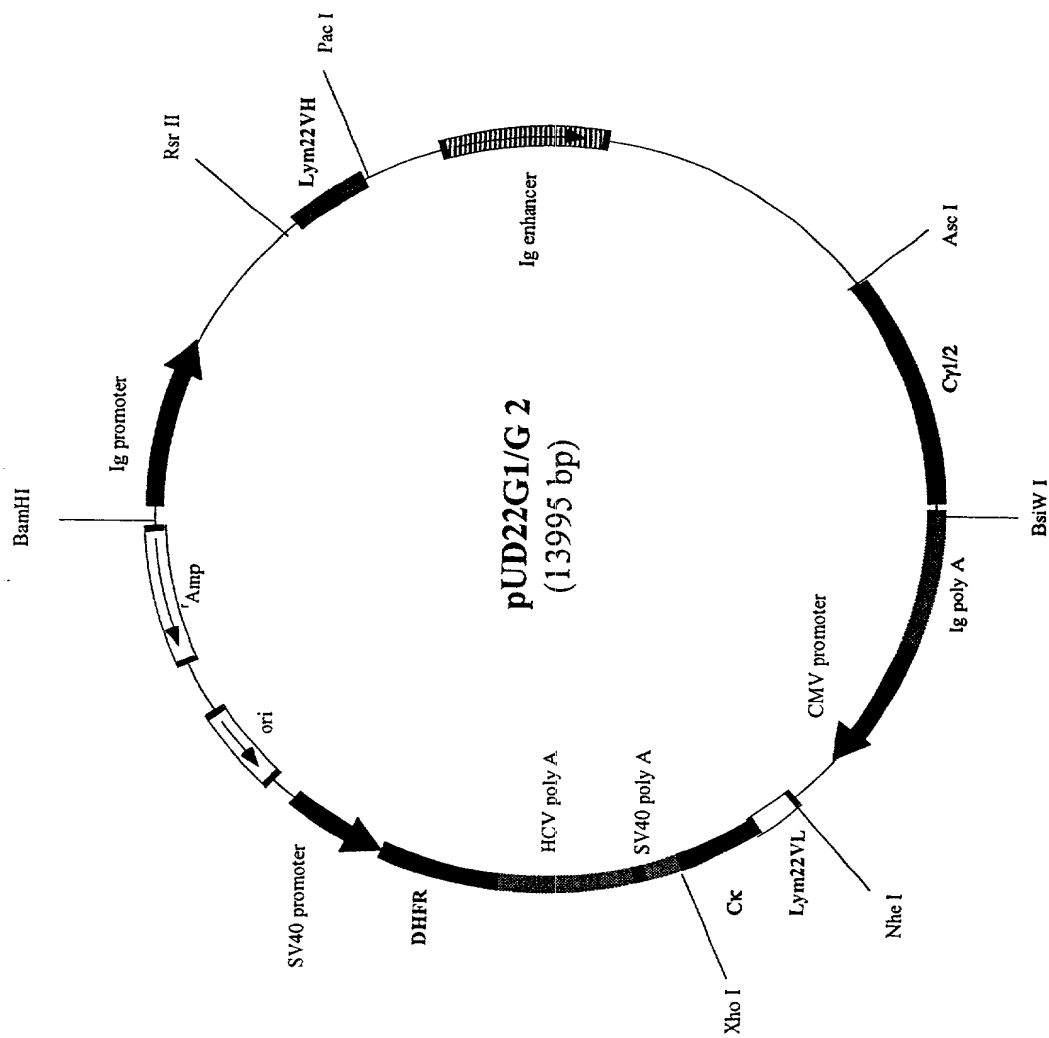


Figure 77

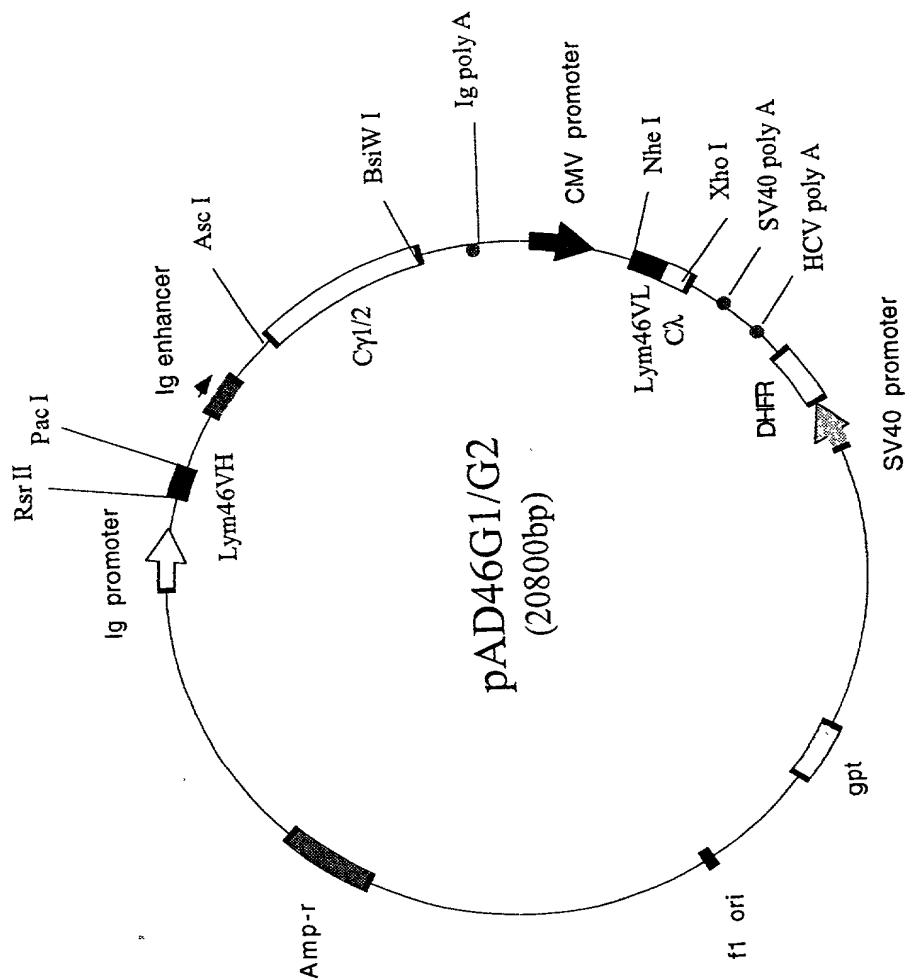


Figure 78

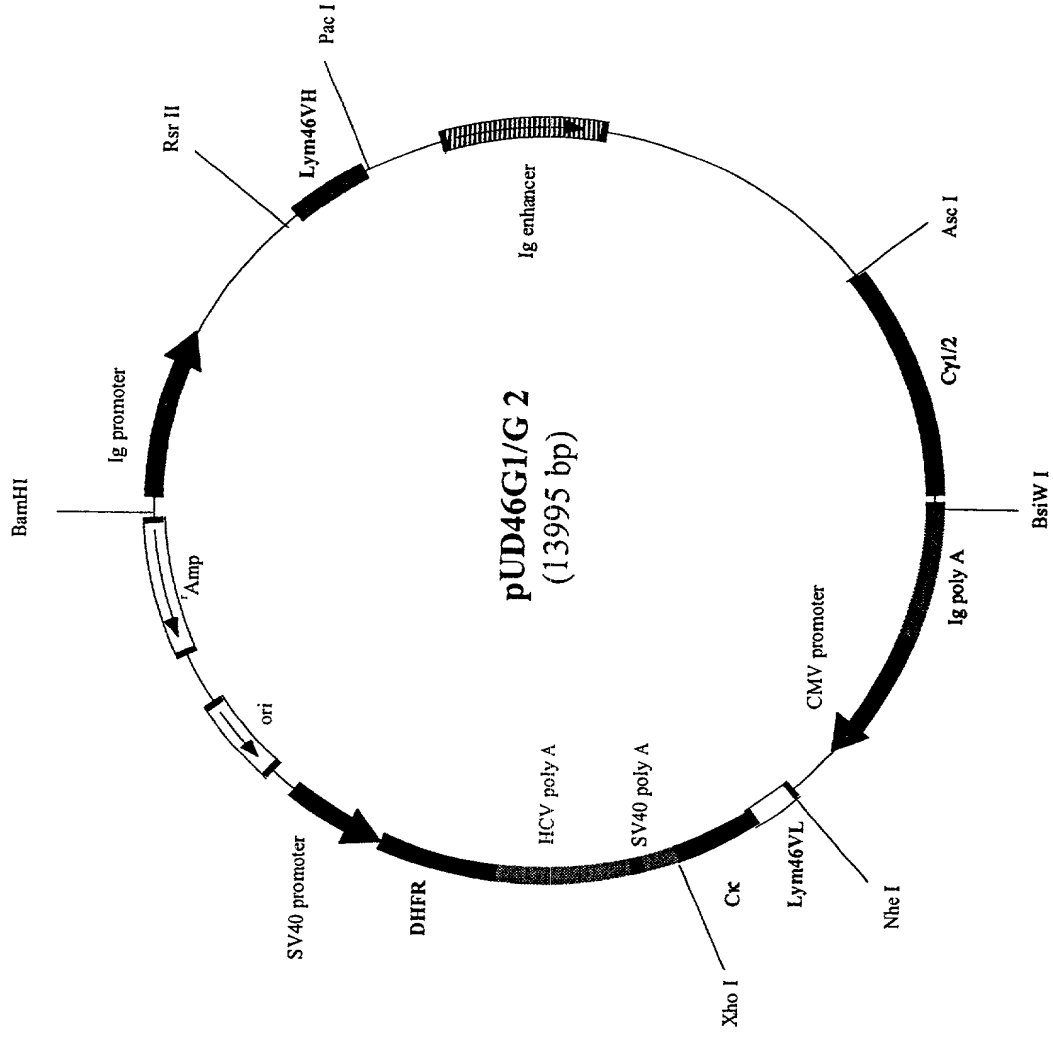
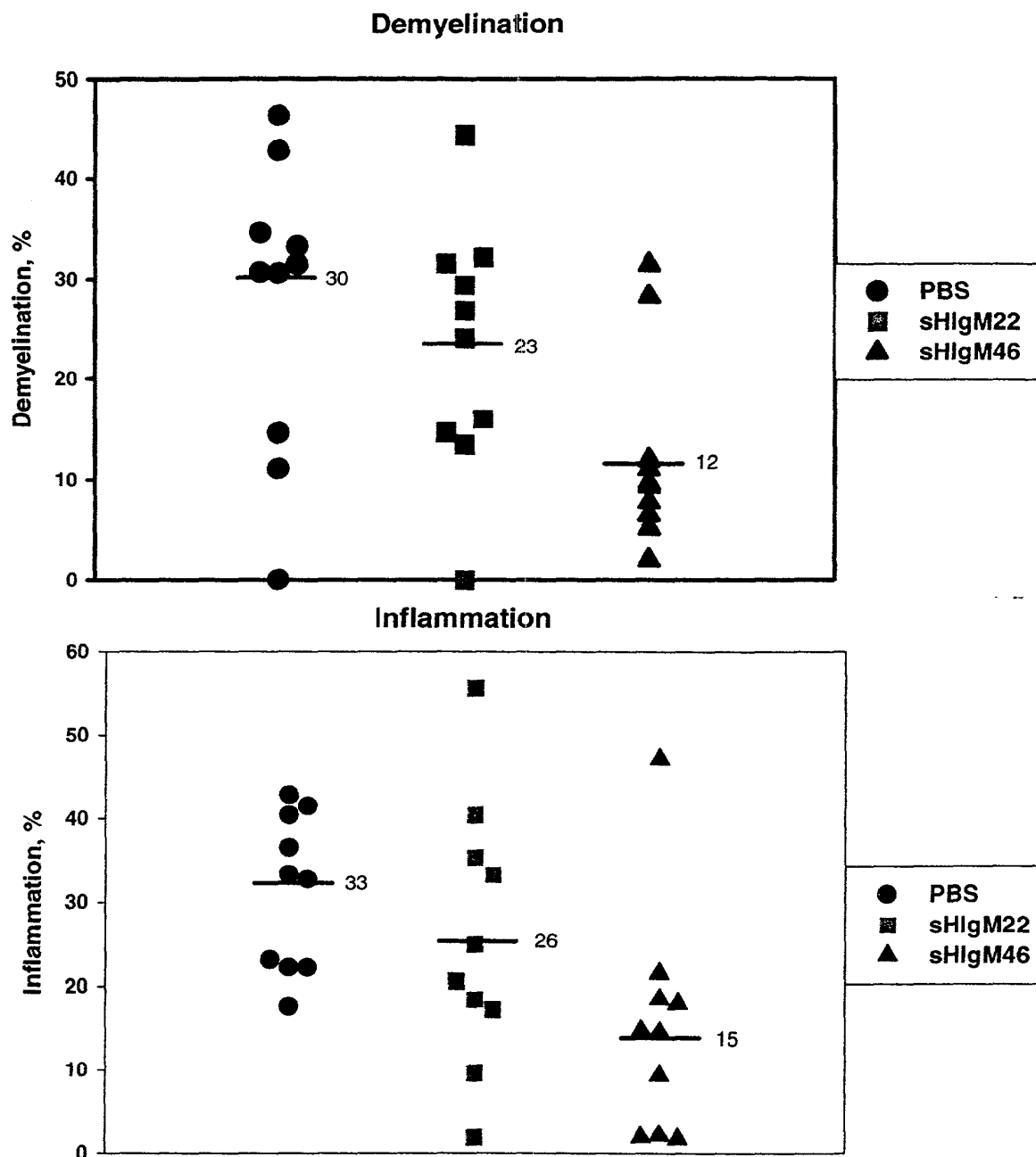


Figure 79

**TMEV Infected SJL Mice
Treated at 21 Days Post Infection**



Graded by quadrant. Comparison by Chi square analysis indicates that sHlgM46 treated group is different from the sHlgM22 and PBS treated groups to a significance of $p < 0.001$. Bars indicate means. Combined from 2 experiments.

Figure 80

**Chronically TMEV Infected SJL Mice
Treated with sHlgM46 or sHlgM22**

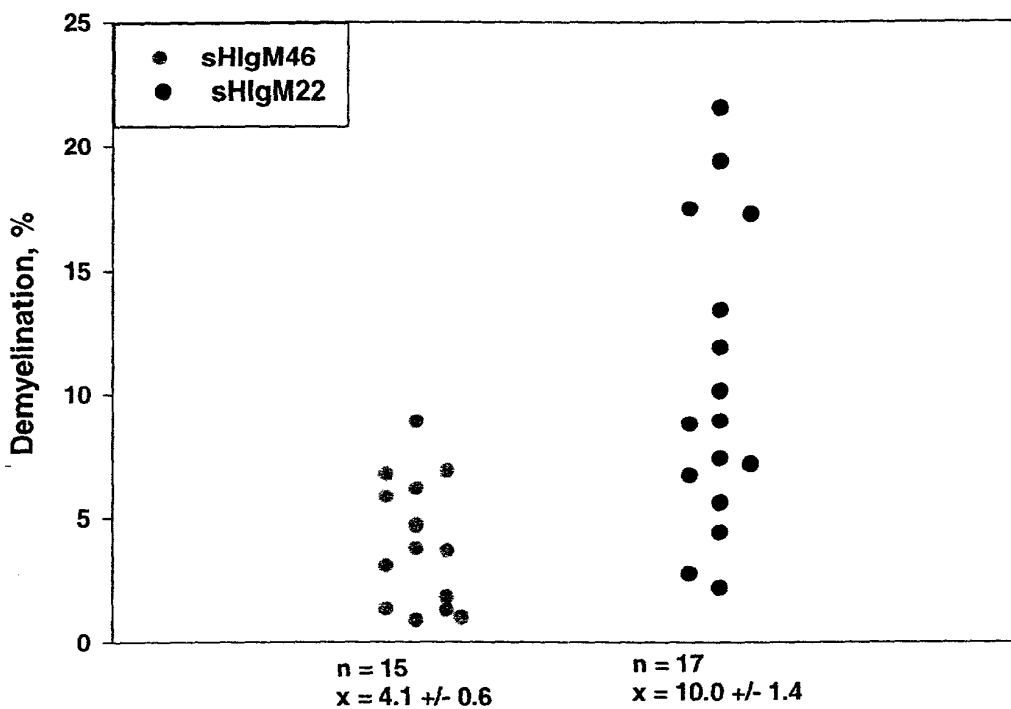


Figure 81

**Chronically TMEV Infected SJL Mice
Treated sHlgM46 vs All Other Antibodies**

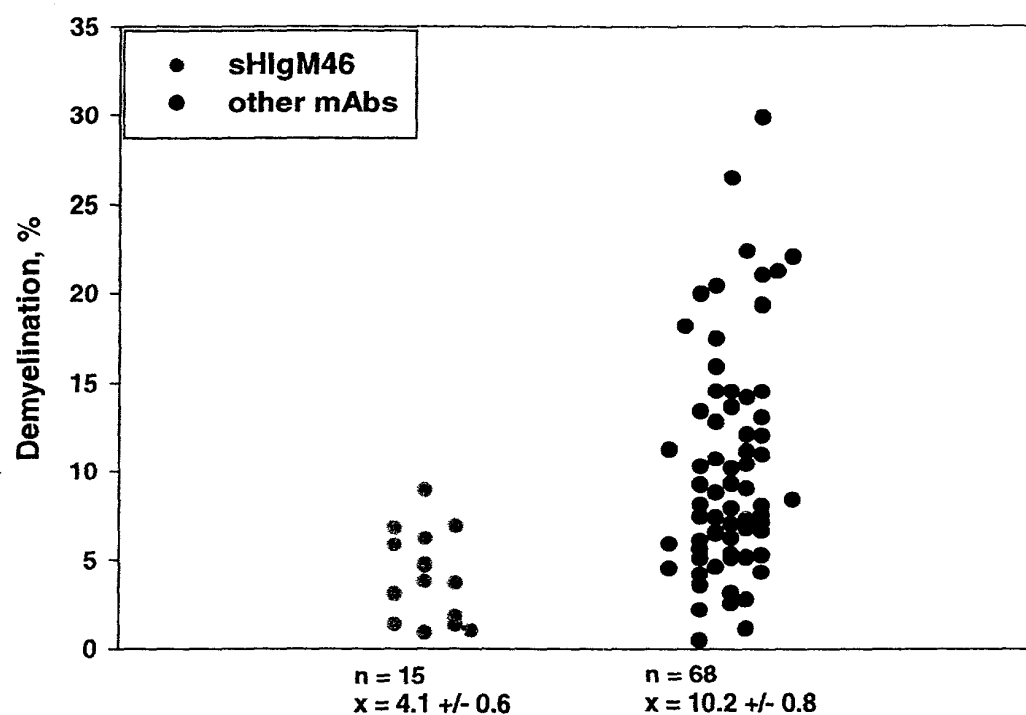


Figure 82

⁴⁵Ca Internalization in Undif CG4 Cells

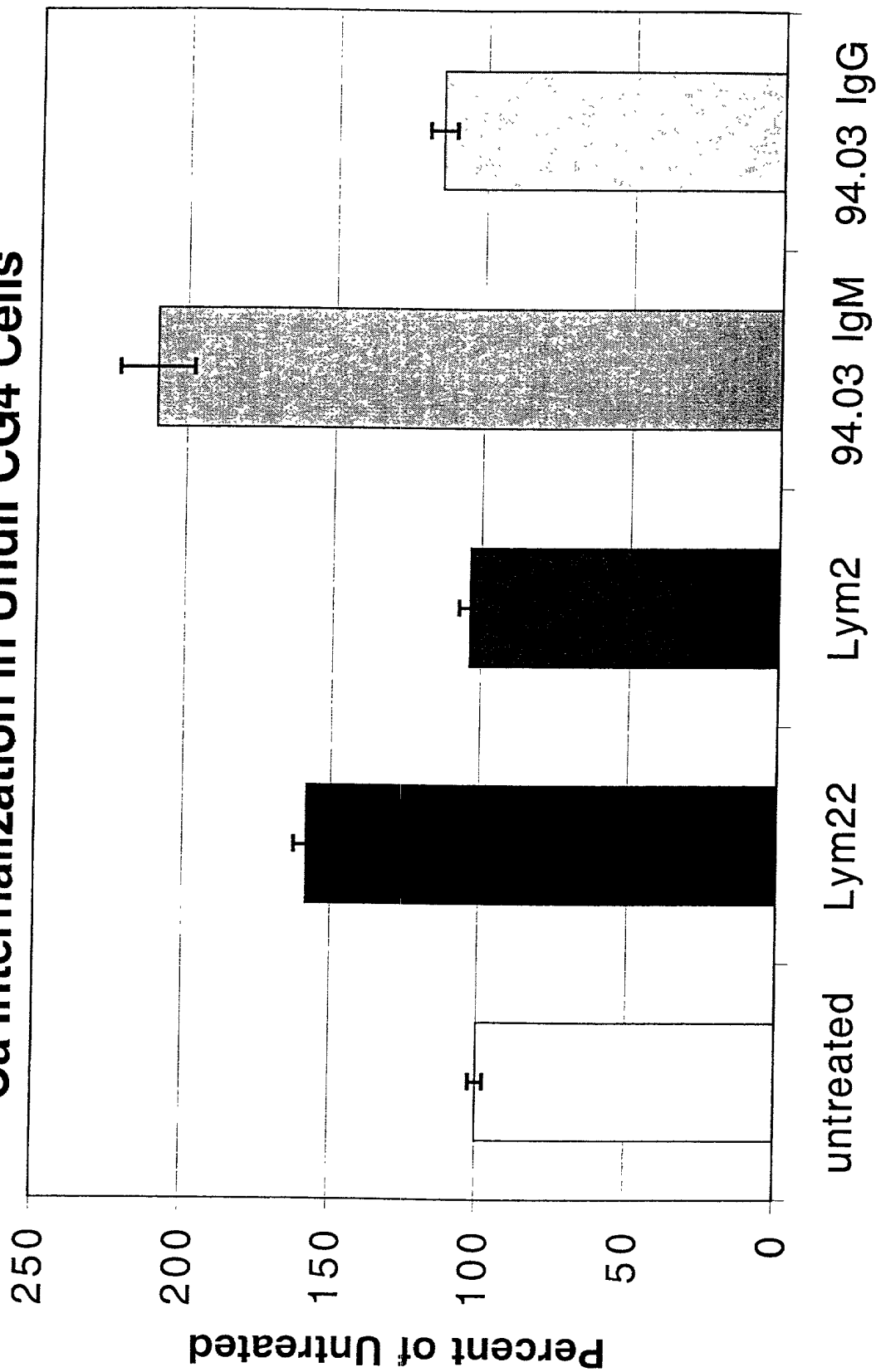


Figure 83

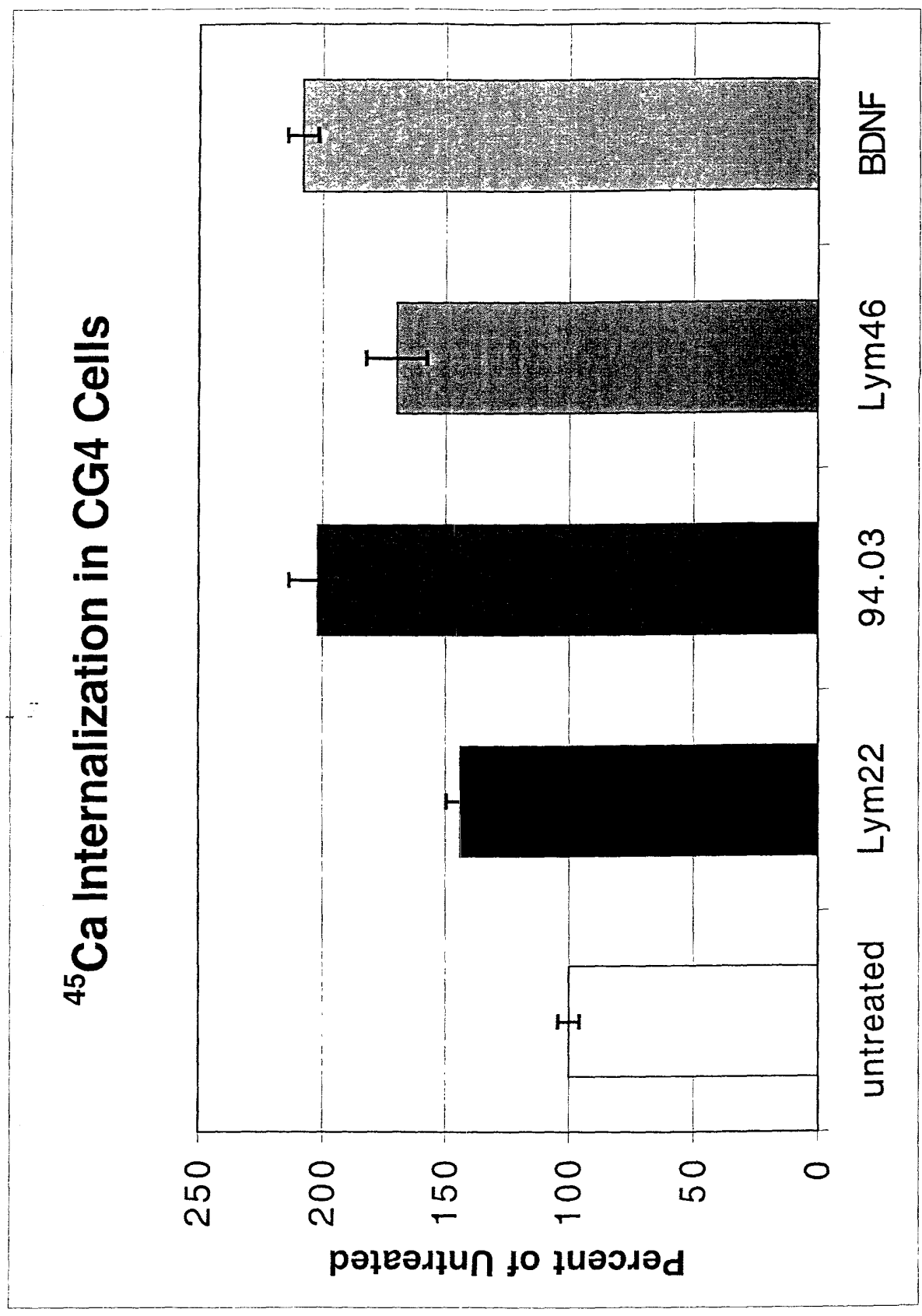


Figure 84

[H2O2] Kill Curve : Lym22 Protective Effect (CG4 cells)

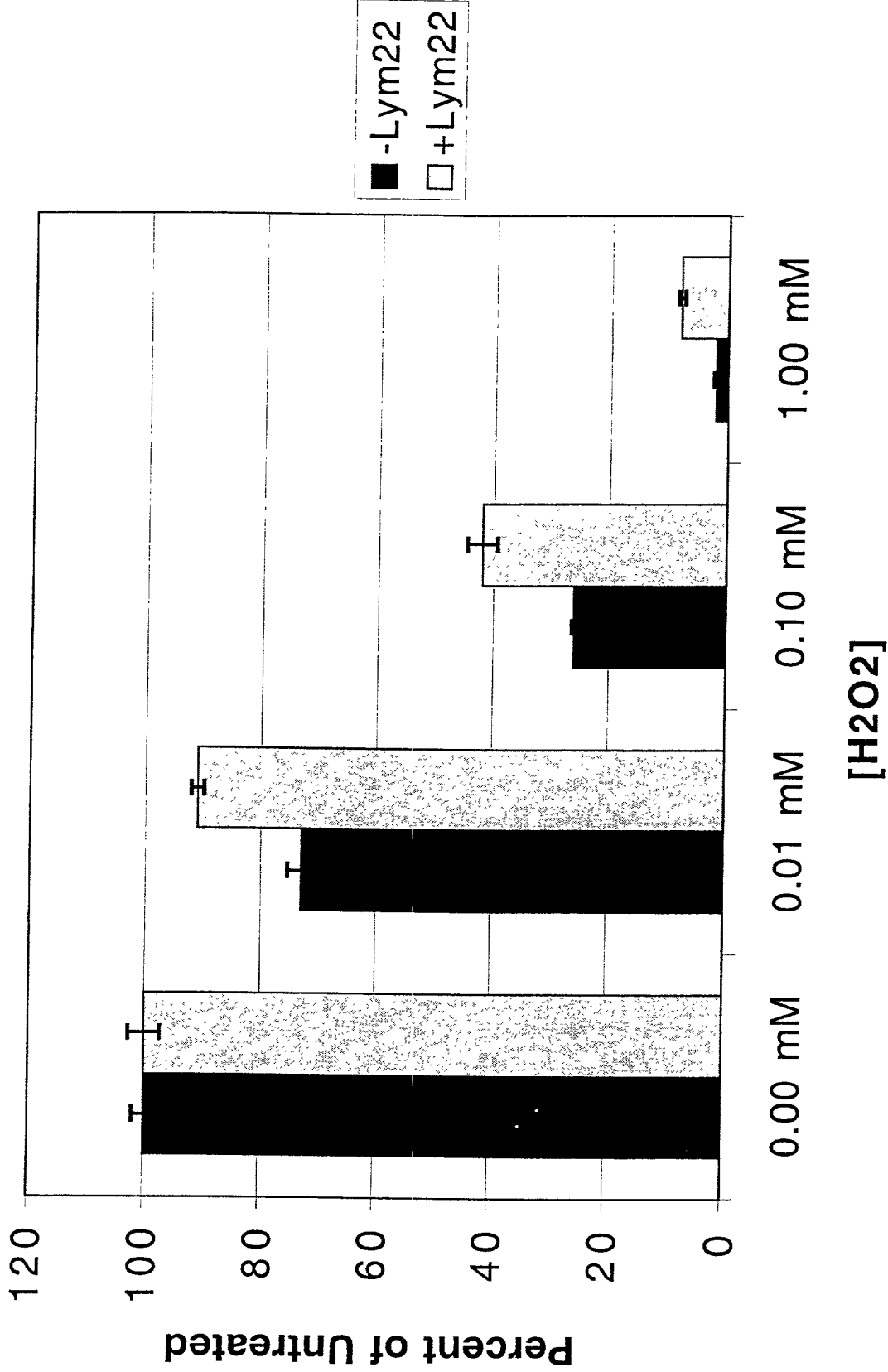


Figure 85

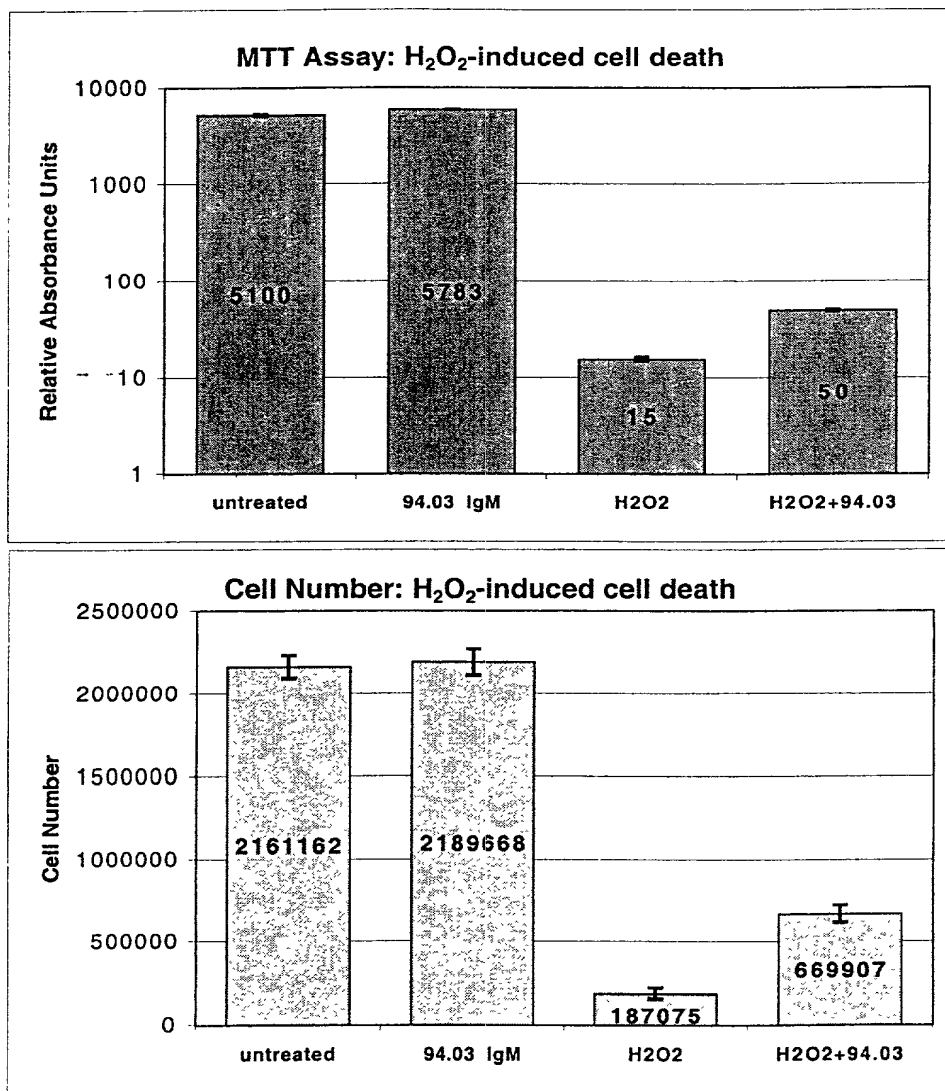


Figure 86